IP Wireless / Wired Camera

REMOTE PAN/TILT ROTATE

User Manual

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1 WELCOME

This is an integrated wireless IP Camera solution. It combines a high quality digital Video Camera with network connectivity and a powerful web server to bring clear to your Desktop from anywhere on your local network or over the Internet.
The basic function of it is transmitting remote video on IP network. The high quality video image can be transmitted with 30fps speed on the LAN/WAN by using MJPEG hardware compression technology.
It is based on TCP/IP standard, build-in WEB server which could support Internet Explorer. Therefore the management and maintenance of your device become easier by using network to achieve the remote configuration, start-up and upgrade firmware.
You can use this IP Camera to monitor some special places such as your home and your office. Also controlling and managing images are easy by clicking the website through the network.

1.1 Features

☆Powerful high-speed video protocol processor
☆High-sensitivity 1/4'' CMOS sensor
☆Picture total 300k pixels
☆Support 3x Optical Zoom
☆Support PT control, Pan 355°, Tilt 90°
☆Optimize MJPEG video compression for transmission
☆Multi-level users' management and passwords definition
☆Embed Web Server for users to visit by IE
☆Support wireless network (WI-FI/802.11/b/g)
☆Support Dynamic IP (DDNS) and UPNP LAN and Internet (ADSL, Cable Modem)
☆Give alarm in cause of motion detection
☆Support image snapshot
☆Support multiple protocols：HTTP/TCP/IP/UDP/SMTP/DDNS/SNTP/DHCP/FTP
☆Support WEP/WPA/WPA2 encryption
☆Support 3G phone, Smart phone control and surveillance
☆Support Firefox, Safari, Google chrome browser.

1.2 Packing List

Untie the pack and check the items contained against the following list:
●IP Camera X1
●Wi-Fi Antenna X1 (only available for wireless model)
●User Manual X1
●DC Power Supply X1
●CD X1
●Network Cable X1
●Mounting bracket X1
NOTE: Please contact us immediately if anything damaged or short of contents.

1.3 Product Views

1.3.1 Front View

Figure 1.1

1 LENS: CMOS sensor with fixed zoom lens.
2 Housing: Alloy housing for waterproof
3 Wireless Antenna: WI-FI Antenna （For wireless model only）

1.3.2 Cable Interface

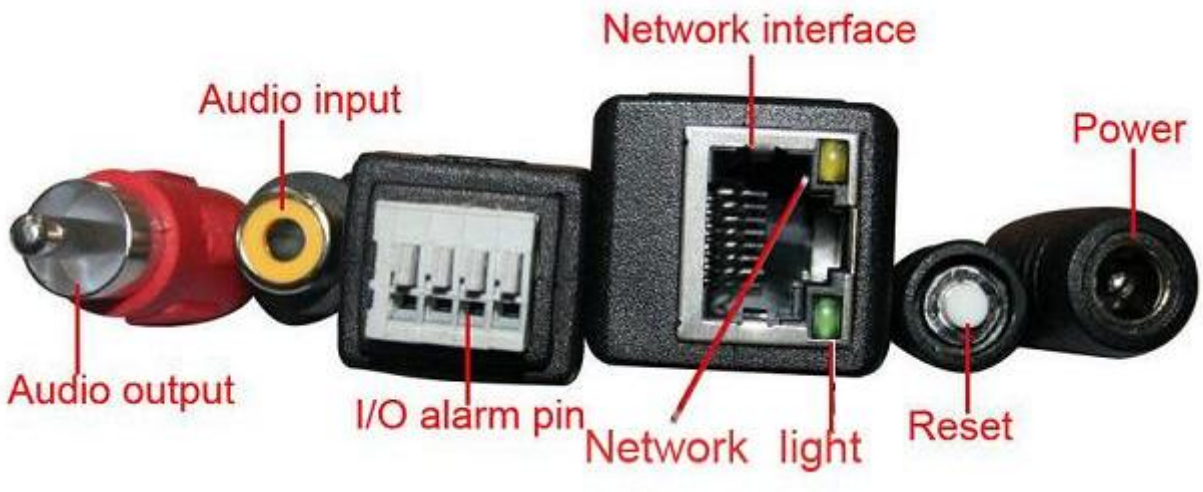


Figure 1.2

Audio Output: The jack is used to plug external speaker or audio output device.
Audio Input: The jack is used to plug external microphone or audio input device.
I/O Alarm Pin: 1 Alarm input(GND) 2 Input 3 Output A 4 Output B
Network Interface: RJ-45/10-100 base T
Network Light: The green LED will on when network connected, the yellow LED will blink when data transferred
Reset: Press and hold the RESET button for about 15 seconds, all the parameters will be back to the factory default settings. (Please keep the power on when do RESET)
Power: DC 12V/2A power supply

1.4 PC System Requirements

System configuration requirements :(Example for viewing four IPCAM)
CPU: 2.06GHZ or above
Memory: 256M or above
Network Card: 10M or above
Display Card: 64M or above memory
Recommendable Operating system: Windows 2000/ XP/ Vista/ 7

1.5 Hardware Instruction

Follow the steps below to set up your camera hardware. Make sure to follow each step carefully to ensure that the camera operates properly
1. Install the Wi-Fi antenna(For wireless model)
2. Plug the power adaptor into camera
3. Plug the network cable into camera and router/switch
4. It takes approx 30 seconds to boot up the camera, then you will find the IP address from "IP Camera Tool" (Figure: 1.8)
5. When the power on and network cable connected, the green led of the real panel will keep on, The yellow led will keep flash.

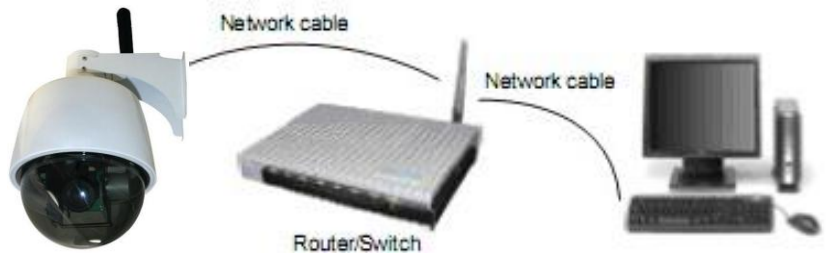


Figure1.3

1.6 Software Installation

Attention: In order to make the installation correctly, we suggest that turn off your Firewall and Antivirus before install the ActiveX, Don't worry, it is safe. (If you are Windows 7 User, please run as administrator)
Software installation is the key to the successful use of this product.
Install the follow software:
1. IP Camera Tool: Open the CD, dbclick "**IPCamSetup.exe**", only click **next,** you will complete the software installation.(figure1.5/ 1.6/ 1.7)
2. ActiveX: Double click "**Appinstall.exe**"—"**Next**"—"**Install**"—"**Finish**".

Figure1.4

Welcome
Welcome to the IP Camera Setup program. This program will install IP Camera on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back
Next >
Cancel

Figure1.5

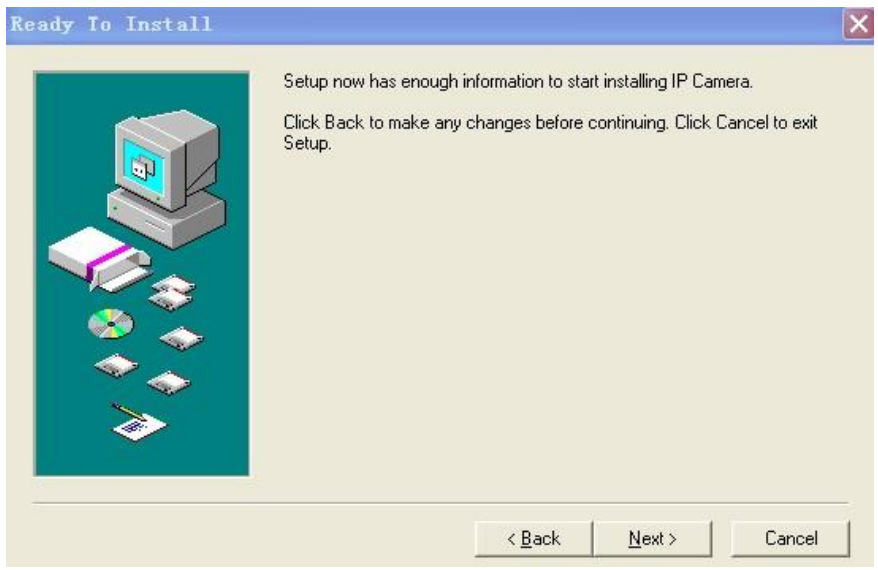

Ready To Install
Setup now has enough information to start installing IP Camera.
Click Back to make any changes before continuing. Click Cancel to exit Setup.
< Back
Next >
Cancel

Figure1.6

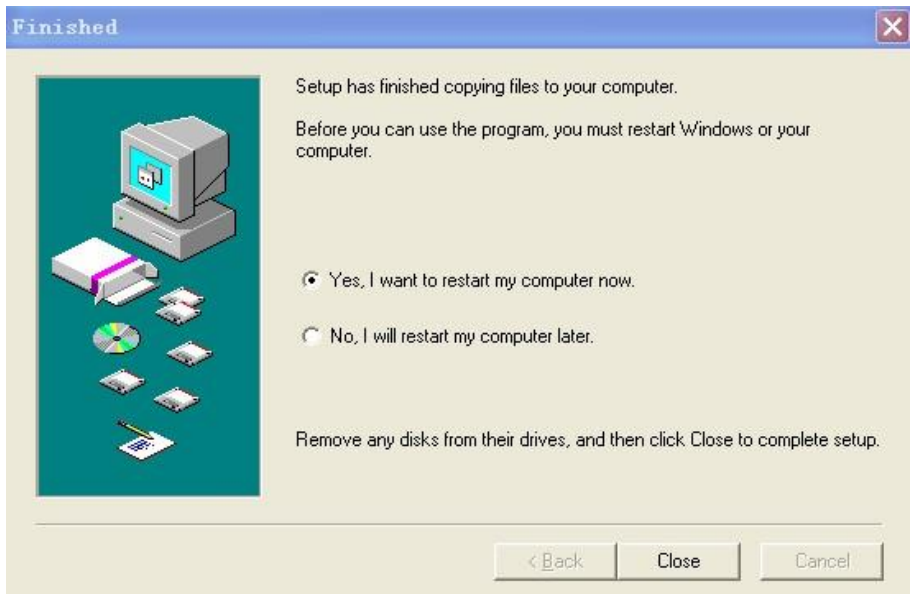

Finished
Setup has finished copying files to your computer.
Before you can use the program, you must restart Windows or your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Close to complete setup.
< Back
Close
Cancel

Figure1.7

After this done, the icon “IP Camera Tool”

will be displayed on desktop automatically.

CAUTION: Before installing and using the product, please read the following precautions carefully and make sure they are fully understood.
Use only the power adaptor attached with the product. Use unauthorized power adapter may cause damage to your IP Camera.

Do not touch the lens of the IP Camera at will. The optimum focus range has been set before it is delivered out of the factory. If you turn the lens, it may cause incorrect focus and vague images.

Do not turn the Pan/Tilt by force, it may cause damage to internal components of the Pan/Tilt.

For firmware upgrading or connection with an external, refer to detailed instructions contained in the CD.

2. SOFTWARE OPERATION

2.1 IP Camera Tool

When the Device has been mounted properly, you can double click the Icon “IP Camera Tool”

and a dialog box as Figure 1.8 will pop up.

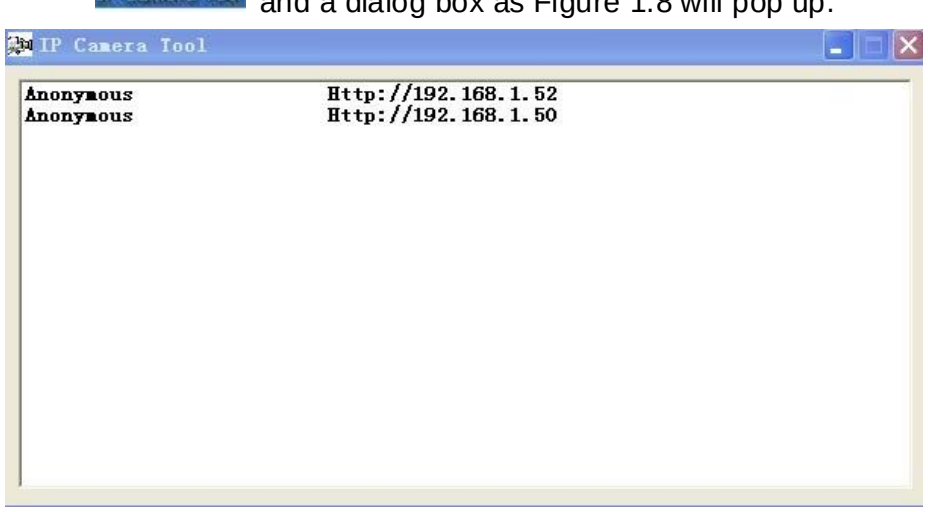


Figure1.8

Note: The software searches IP Servers automatically over LAN.
There are 3 cases:
1. No IP Cameras found within LAN. After about 1 minute search, the Result Field will show “not found IP Server” and the program shut automatically.

2. IP Cameras have been installed within LAN. All the IP Cameras will be listed and the total number is displayed in the result field as shown in Figure 1.8

3. The IP Cameras installed within LAN do not share the same subnet with the monitoring PC. A prompt as shown in result field (prompt: **Subnet doesn’t match, double click to change**!). Click the left mouse button to choose the prompt and click the right mouse, choose **Network Configuration** to set the static IP address of the Camera to the same subnet as LAN. (Figure 2.2)

NOTE: If it shows" **Subnet doesn't match, double click to change**!", you can also choose "**Obtain IP from DHCP Server**" to get a dynamic IP. (Figure 2.1)

2.1.1 Six Options

Choose the IP Camera list and Click right mouse, there are six options: (Figure 1.9)
Basic Properties, **Network Configuration**, **Upgrade Firmware**,
Refresh Camera List, **Flush Arp Buffer**, **About IP Camera Tool**.

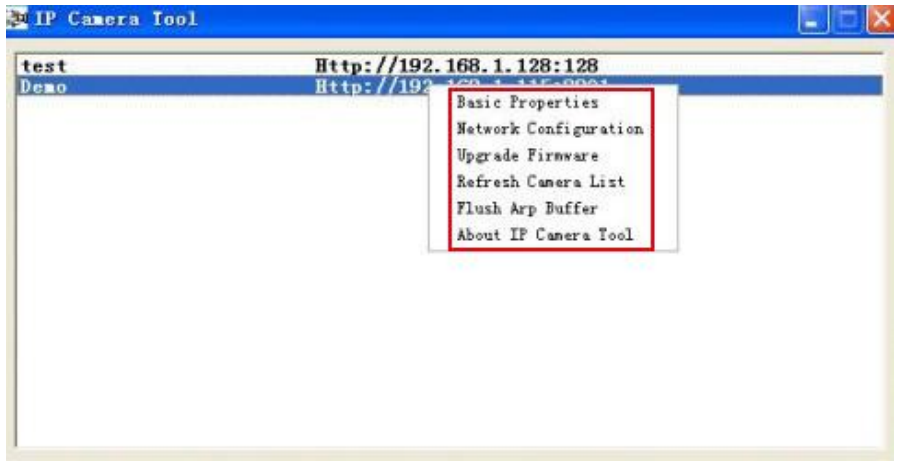


Figure1.9

2.1.1 .1 Basic Properties

There are some device information in the Basic Properties, such as **Device ID, System Firmware Version, Web UI Version.**（Figure 2.0）

The **Device ID** just is the camera's **MAC ID,** which should be the same as showed on the sticker at the bottom of camera. Every camera has its unique MAC ID. So if there are many IP address showed in the list, check the MAC ID, you can ensure which camera is it.

Sometimes, if there is no IP address showed on the IP Camera tool, maybe it's blocked by firewall, then add the MAC ID to the router, and give it a fixed IP or add the MAC ID as a trusted site. There are two MAC Address, one is Device MAC ID, the other is WIFI MAC ID.

WIFI MAC ID, you can find it from the sticker at the bottom of the camera, if this sticker lost, you can login your WIFI router, check the host status, which will show all the WIFI device connect to this router, you can also find the IPCAM's WIFI MAC ID there.

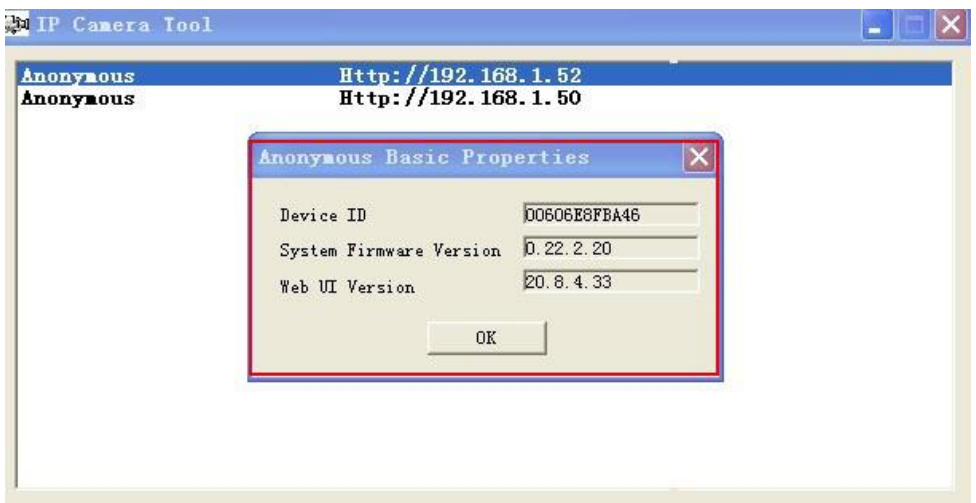


Figure2.0

2.1.1.2 Network Configuration

In this page, you can configure the Network parameter.

Figure2.1

Obtain IP from DHCP server: If clicked, the device will obtain IP from DHCP server. In other words, the camera will have a dynamic IP. (Make sure the Router which the camera connects has DHCP function and DHCP is enabled). (Figure 2.1)

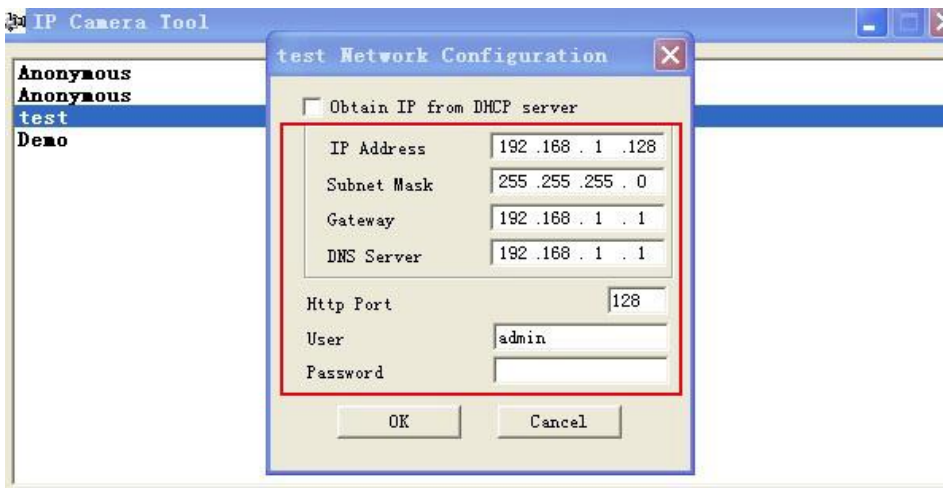


Figure 2.2

IP address: Fill in the IP address assigned and make sure it is in the same subnet as the **Gateway**, and the subnet should be the same as your computer or router. (i.e. the first three sections are the same)
Subnet Mask: The default subnet mask of the equipment is: 255.255.255.0. You can find the subnet mask from your PC or router.
Gateway: Make sure it is in the same subnet with PC's IP address .Here gateway is the LAN IP of your router.
DNS Server: IP address of IPS network provider. You can also set it's the same as the Gateway.

NOTE: You can find the **Subnet Mask**, **Gateway**, **DNS Server** from your router, or check the local connection status of your computer, get all the parameters. Normally two DNS servers are optional.

Http Port: LAN port assigned for the equipment, default is 80. You could set another port number like 81, 801, 8001 etc.
User: Default administrator username is: **admin** (please make sure all are lowercase letter)
Password: Default password is bank, no password.

NOTE: When prompt "subnet doesn't match, double chick to change!" appeared, please set the **IP Address**, **Subnet Mask**, **Gateway**, **DNS Server** once again, or enable **Obtain IP from DHCP server.**

2.1.1.3 Upgrade Firmware

Enter the correct User and Password to upgrade system Firmware and Web UI. If you upgrade the camera, Please **upgrade system firmware first** and **then upgrade Web UI**. Or it may damage the camera.（Figure 2.3）

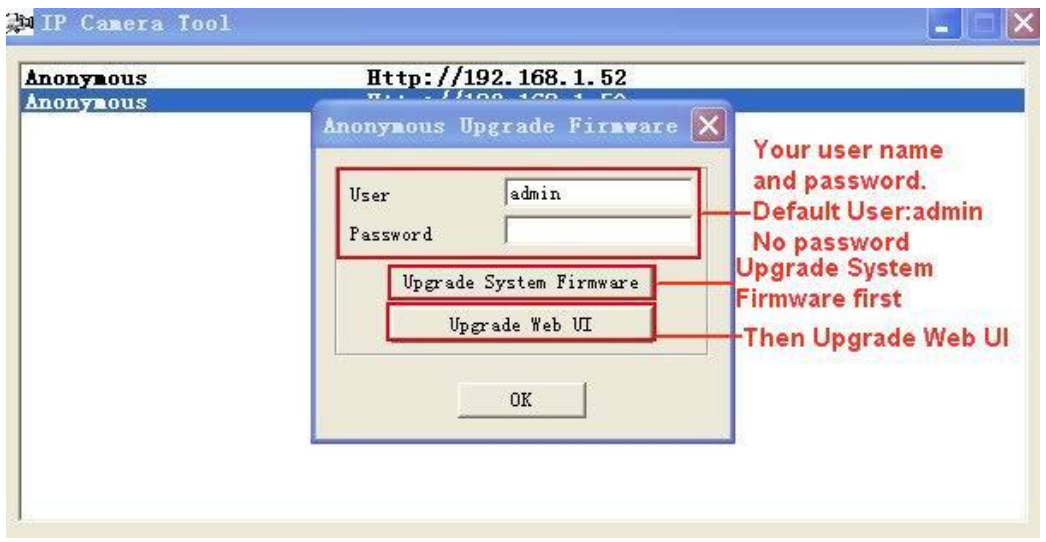


Figure 2.3

Please download the firmware package under the correct type of your camera before upgrade.
Follow the upgrade document in the package carefully to upgrade. Please look readme firstly before you do upgrade.

CAUTION: Please don't upgrade the firmware freely. Sometimes, your camera may be damaged if wrong operation during upgrade.
If your camera works well with the current firmware, we recommend you'd better not upgrade it.

NOTE: When doing upgrade, please must keep the power on, and the best use wired mode, connect the network cable.

2.1.1.4 Refresh Camera List

Refresh camera list manually.

2.1.1.5 Flush Arp Buffer

When cable network and wireless network of the device are fixed IP address .There is a problem you may encounter is can search the camera IP but can't open the camera web page .you may try to use Flush Arp Buffer.

2.1.1.6 About IP Camera Tool

Check the IP Camera Tool Version and IP Camera ActiveX Control Version here.

2.2 Camera Login

You can access the camera through **IP Camera Tool** or **IE, Firefox, Safari, Google Chrome or other standard browser** directly.
1. Double click the IP address of the IP Camera listed (Figure 1.8). The default browser you use will run automatically and come to the camera login interface. (Figure 2.6)

2. To access the camera by IE Browser directly, just type the camera's IP address, for example, if the camera's IP address is 192.168.1.123:

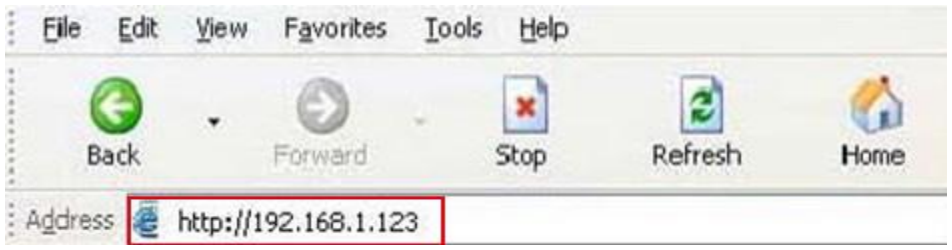


Figure 2.4

Windows Security
The server 192.168.1.104 at ipcamera_000635489755 requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
User name
Password
Remember my credentials
OK
Cancel

Figure 2.5

The default user name is **admin, no password**

Input the correct user name and password, the Sign In interface will pop-up.
There are three models to login (figure 2.6)**.**

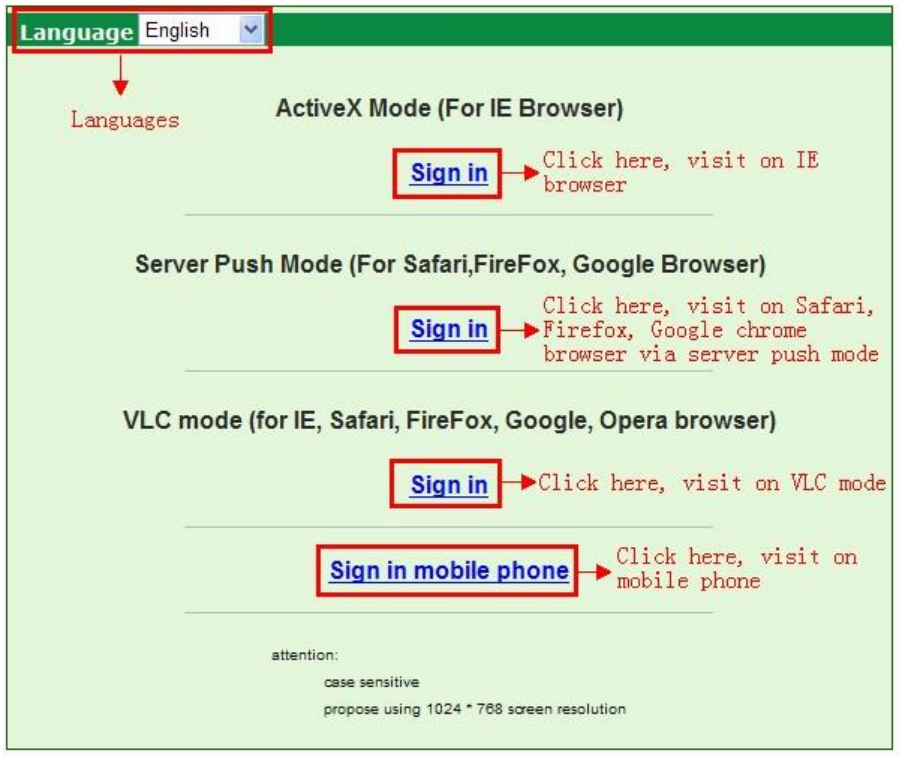

Language English
Languages
ActiveX Mode (For IE Browser)
Sign in
Click here, visit on IE browser
Server Push Mode (For Safari,FireFox, Google Browser)
Sign in
Click here, visit on Safari, Firefox, Google chrome browser via server push mode
VLC mode (for IE, Safari, FireFox, Google, Opera browser)
Sign in
Click here, visit on VLC mode
Sign in mobile phone
Click here, visit on mobile phone
attention:
case sensitive
propose using 1024 * 768 screen resolution

Figure 2.6

(1) Active Mode (For IE Browser): available in IE6.0 or above explorer
(2) "Server Push Mode": available in Firefox, Safari, and Google Chrome browser.
(3) "Sign in mobile phone": available in Mobile phone

2.3 For IE Browser

Choose **Active Mode (For IE Browser)**, and sign in.

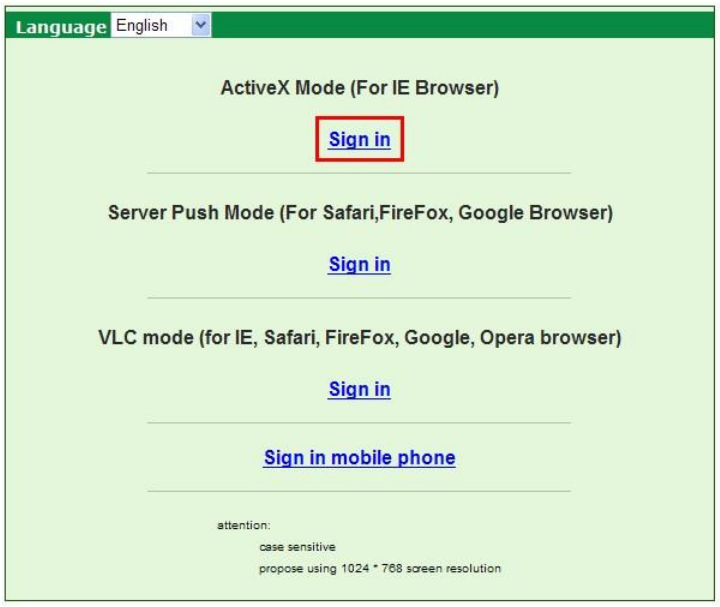


Figure 2.7

The first time login the camera, maybe get ActiveX prompt as the picture above, please click the prompt and choose **Run Add-on,** refresh and login the camera again, then will see live video, details as below:

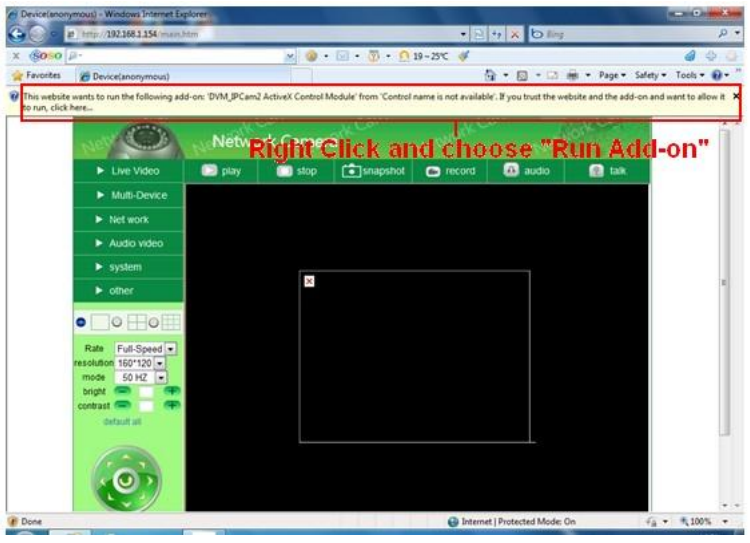


Figure2.8

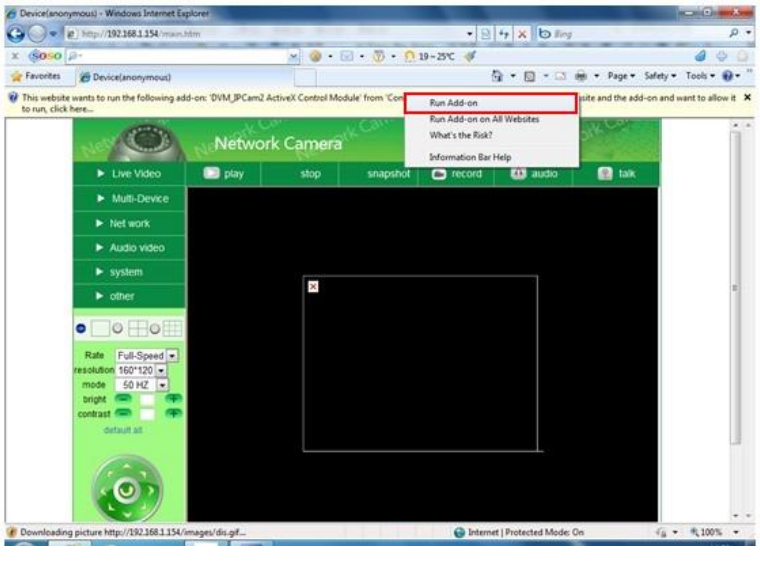
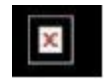


Figure 2.9

Note: If there is still no live video after run ActiveX, and a red cross  showed in the center of the screen, or even just a black screen, please try to enable the ActiveX options of IE security settings.

Please do the follow steps:

1. Close the firewall of your computer.
2. Change the ActiveX settings, "**IE**" browser > "**Tool**" > "**Internet Options**" > "**Security**"> "**Custom Level**" > "**ActiveX control and Plug-ins**", all the ActiveX options set to be "**Enable**":

Especially:

Enable: Download unsigned ActiveX controls

Enable: Initialize and script ActiveX controls not marked as safe

Enable: Run ActiveX controls and plu-ins

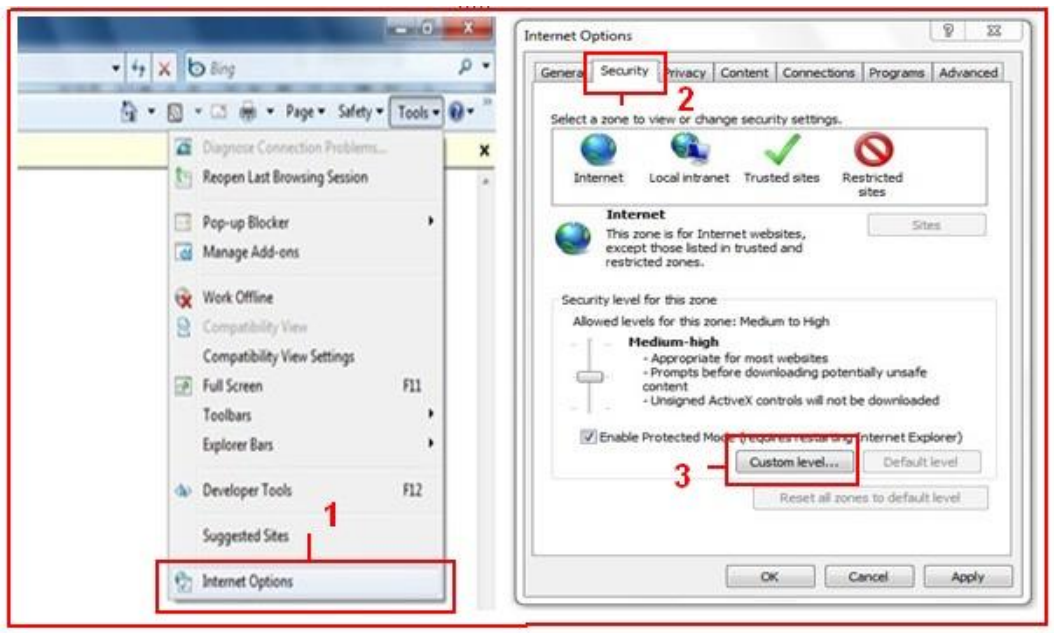


Figure3.0

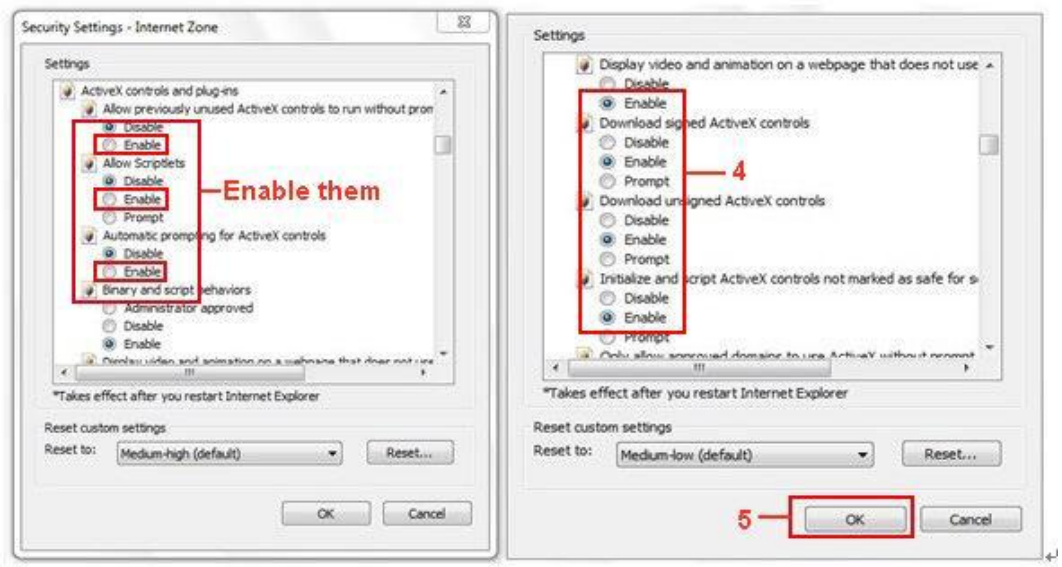
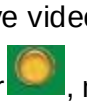


Figure 3.1

In addition: you can also click "**Start**" menu->"**Internet Explorer**", choose "**Internet attributes** " to enter, or via "**Control Panel**" ->"**Internet Explorer**", enter to Security setting.

If you allowed the ActiveX running, but still could not see live video, only a Red Cross in the center of the video, and the device status light change to yellow color  , not green, please change another port

number to try. Don't use port 80, use other port such as 128, 1008 etc.

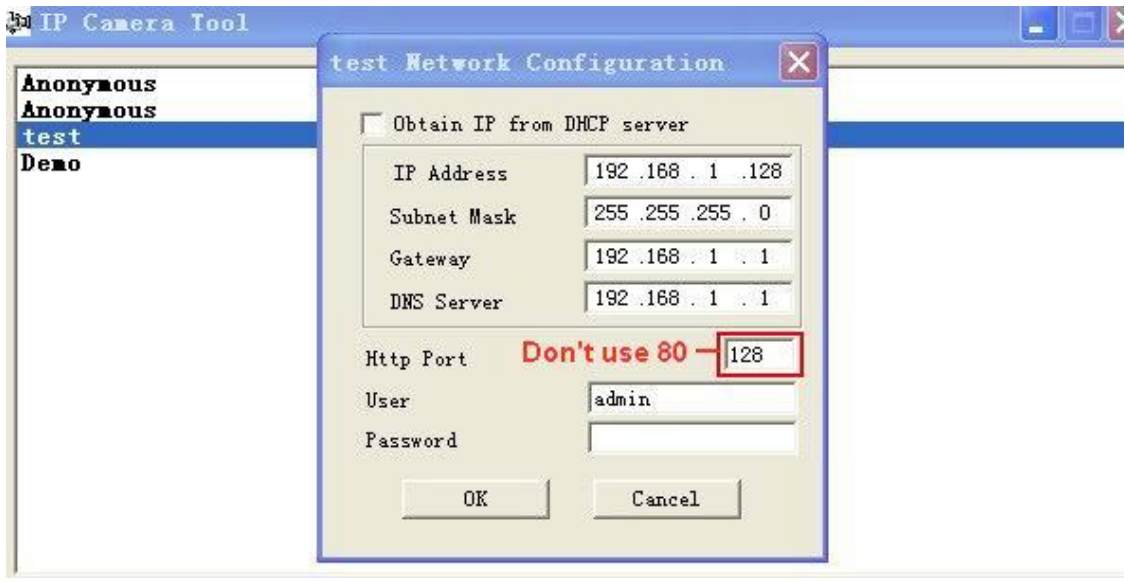


Figure 3.2

NOTE: Make sure that the firewall or anti-virus software doesn't block the software or ActiveX. If you couldn't see live video, please close your firewall or anti-virus software, and try again.

2.4 For Safari, Firefox, Google Browser

Choose **Server Push Mode (For Safari, Firefox, Google Browser)**, and sign in
Server Push Mode doesn't support ActiveX, so some functions are not available, such as **Play**, **Stop**, **Record**, **Audio**, **Talk** etc. if you want to use these functions, please use IE browser.

Figure 3.3

2.5 For Mobile Phone

Choose **Sign in mobile phone**, and sign in.
Mobile phone doesn't support ActiveX, only some basic functions can be available in this mode.
It supports Iphone, Smart phone, 3G phone etc. Normally, if the mobile phone supports network video, then it can work with our IP Camera.

Figure 3.4

2.6 ActiveX Mode (For IE Browser)

Login the camera in ActiveX mode, the main User Interface as below:
NOTE: There are 3 levels of users, **Visitor, Operator, Administrator**, if you login with different users, the use authority is different. (**See 3.11 User Settings**, Figure 8.5)

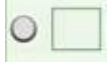
2.7 For Visitor

When login as Visitor, you can enter the IP Camera for visitor.
Visitor is the lowest level with only some operation available

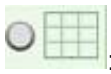
Figure 3.5

Channels:

Our IE software supports 9 channels totally. Click can get different windows.

 : Click this one, you can view the main channel of the camera you login.

: Click this one; you can view 4 Channels of cameras which connected, from CH1 to CH4.

 : Click this one; you can view 9 Channels of cameras which connected, from CH1 to CH9.

NOTE: **If you want to view 4/9 channels, you should set the Multi-Device firstly (See 3.1 Multi-Device Settings)**

Status of Channels:

There are 9 icons at the bottom of the UI which show the status of each channel of the camera.

: Grey color, means there is no device connected to the main device from this channel.

: Green color, means the device connected from this channel, and it works well.

: Red color, means the device of this channel is recording.

: Yellow color, means set this channel in multi-device already, but it fails to connect to the main device.

OSD Settings:

Figure 3.6

OSD: Means "On-Screen Display", click "**Audio video**" > "**OSD**", set display date and time on the video.
Disabled: Click this one, means clear the OSD.
Color: Can set the OSD text color as **black, yellow, red, white, blue** etc.
Add time stamp on record: Click this, there will be time OSD on record video files.

Figure 3.7

Rate and Resolution:

Rate: Set video frame here, from “full-speed to 1fp/5s”. (Figure 3.8)
Resolution: Set the resolution to be 160*120/ VGA(640*480)/ QVGA (320*240). (Figure 3.9)
NOTE: When doing recording, Rate and Resolution parameter settings is very helpful for getting small size record files, the lower parameter to get the smaller file.

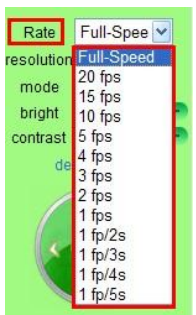


Figure 3.8

Figure 3.9

TOP Menu:

Figure 4.0

Live Video: Click it to get live video. When you want to back to live video from other menus, just click it. Only under live video, you can do the operation on the right side, such as **play, stop, snapshot** etc.

play: Click it to get into play mode, when you click stop icon, the video will be stopped, then click play icon, it will show the video again.

stop: Click it to stop the live video. You can click play icon if you want to see live again.

snapshot: Click it to get snapshot. It will show the date and time of the snapshot you get, when you want to save it, you will find the snapshot file named by “snapshot_MAC ID_date_time”.

record: Click it to start record by manual, and the icon will change to red color record, click it again, it will stop record. The record file will be saved to the folder you set. (Figure 10.8-Figure11.0)

audio: Click it to collect the sound around the camera, if you plug a earphone or a speaker in the computer which you are using, you will hear the sound around the camera. If connect an external microphone, when you click it to start work, the icon will change to red color audio, click it again, will stop audio function.

talk: Click it to start the talk function, firstly you have to plug a microphone in your computer. When you are talking about something with the microphone from your computer, the sound will come out from the built-in speaker of the camera, people beside the camera will hear the sound. If you connected an external speaker from the audio output hole at the back of the camera (Figure 1.2), you will get better sound effect. Once click it to start work, the icon will change to red color talk, click it again, will stop talk function.

NOTE: For visitor, if you click other menus which visitor don't have the right to operate it, there will be a pop-up of login interface (Figure 2.6), please input the user name / password for at least 3 times to login again.

2.8 For Operator

When login as Operator, you can enter the IP Camera for Operator.
For operator, it not only supports all the functions which for Visitor, and also supports these functions as below:

Figure 4.1

Audio Video Settings

Figure 4.2

Audio buffer: Click this icon, it will show five numbers, which means 1/2/3/4/5 seconds' buffer of audio.

Reversal: Click this icon to see the reversal image. Click again, will back to normal.
Mirror: Click this icon to see the mirror image. Click again, will back to normal.
NOTE: You can choose Reversal and Mirror function when you set up the camera in a special position.

Mode, Bright, Contrast Settings

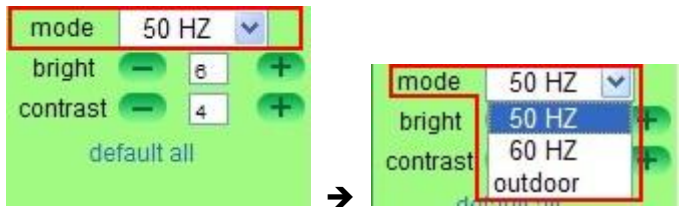


Figure 4.3

Mode: This is work mode optional, 50HZ/60HZ for the users who use 50HZ/60HZ frequency, outdoor for the users who want to use this camera to monitor toward outdoor environment
NOTE: This camera normally should be used in a indoor environment

Bright: Set the parameters to adjust the image quality of video. Click to adjust the value

Contrast: Set the parameters to adjust the image quality of video. Click to adjust the value

Default all: Click it to set all the parameters back to factory setting.
NOTE: If you login the camera, there is no video displayed, and the parameter of bright/contrast is blank, maybe you can try to click “default all” to set the parameters back to factory setting to get live video.

Pan/Tilt Control

Figure 4.4

: Click this icon, camera will move up, you can click one by one or hold it to control the movement

: Click this icon, camera will move down, you can click one by one or hold it to control the movement

NOTE: It is the same operation as left, right etc.

: Click this icon, the lens will zoom in, and the previous image will become larger, it supports 3Xzoom.

: Click this icon, the lens will zoom out, and the previous image will become smaller

: Click this icon, camera will rotate left and right, means horizontal patrol, click to stop it.

: Click this icon, IO output Switch ON. Click to set it OFF.

RECOMMENDATION:

Image PT function: Image PT function is recommended, you can control the camera direction on the live video. Double click the right mouse on the live video to enable this function, and you will see a white & transparent arrow on the live video, click left mouse to control direction, totally eight directions are available. This is very convenient for Pan/Tilt operation.
Double click right mouse again to exit.

Preset Settings

Figure 4.5

: Set Preset Position. It supports 8 preset positions. Firstly, control the camera rotate to the special position you need to set, click **Set Preset Position** button , it will pop-up a dialog frame(Figure 4.5), choose the any number (1-8) you want to set it be, then it done.
NOTE: Set different positions with a same number, camera will record the last position setting only.

: Call Preset Position. It supports 8 preset positions. If operator wants to monitor an important area quickly and precisely, just click **Call Preset Position** button , it will pop-up a dialog frame(Figure 4.5), choose the number, then camera will rotate to the preset area automatically.
If you want to use **Call Preset Position**, you have to **Set Preset Position** firstly.

NOTE: For Operator, if you click other menus which operator don't have the right to operate it, there will be a pop-up of login interface (Figure 2.6), please input the user name / password for at least 3 times to login again.

2.9 For Administrator

Details see **Settings as Administrator** (details3.1-3.22).
.

3 Settings as Administrator

When login as Administrator, you can enter the IP Camera for Administrator.
Administrator supports all the settings and operations of the camera; you can set and control it freely
There are some special functions only for administrator as below:

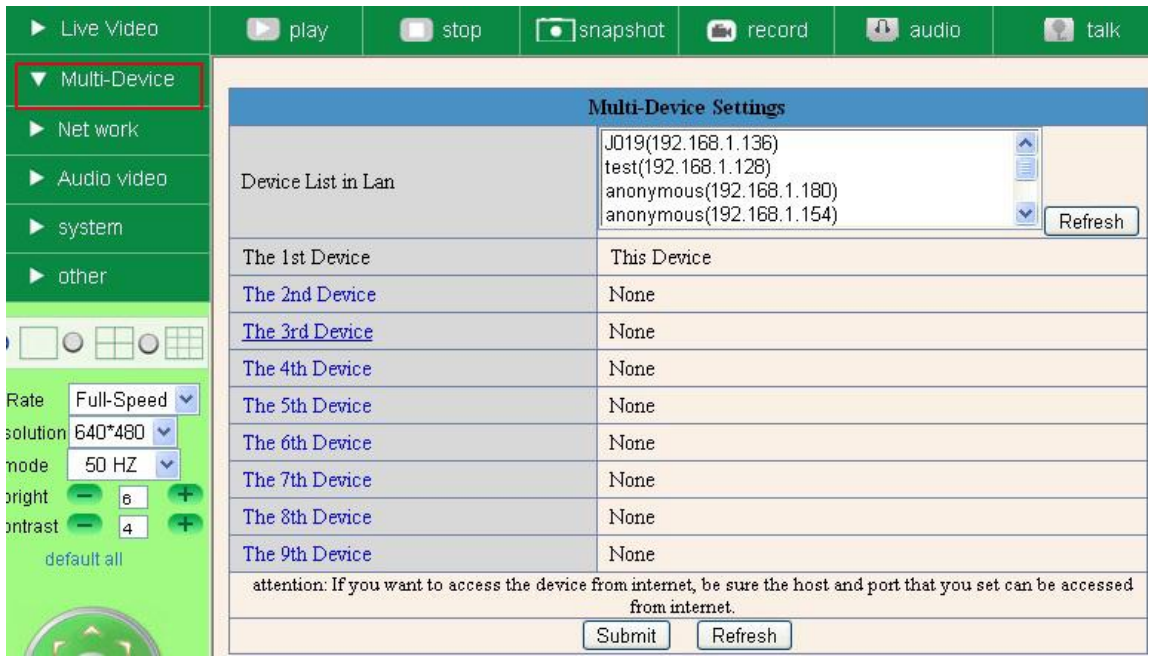
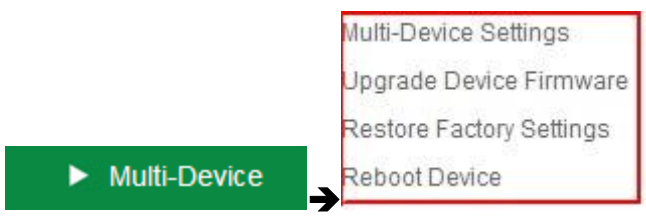


Figure 4.6

3.1 Multi-Device Settings



Multi-Device Settings

This camera can support max. 9 channels device at the same time.

3.1.1 Set Multi-Device in LAN

In the Multi-Device Settings page, you can see all devices searched in LAN. The 1st device is the default one. You can add more cameras listed in LAN for monitoring. This web software supports up to 9 IP Cameras online simultaneously.

Click **The 2nd Device** and click the item in the **Device List in Lan**, it will fill the Alias, Host, Http Port automatically, then input the correct user name and password, click **Add**. Set more devices in the same way, after all done, please click **Submit**.

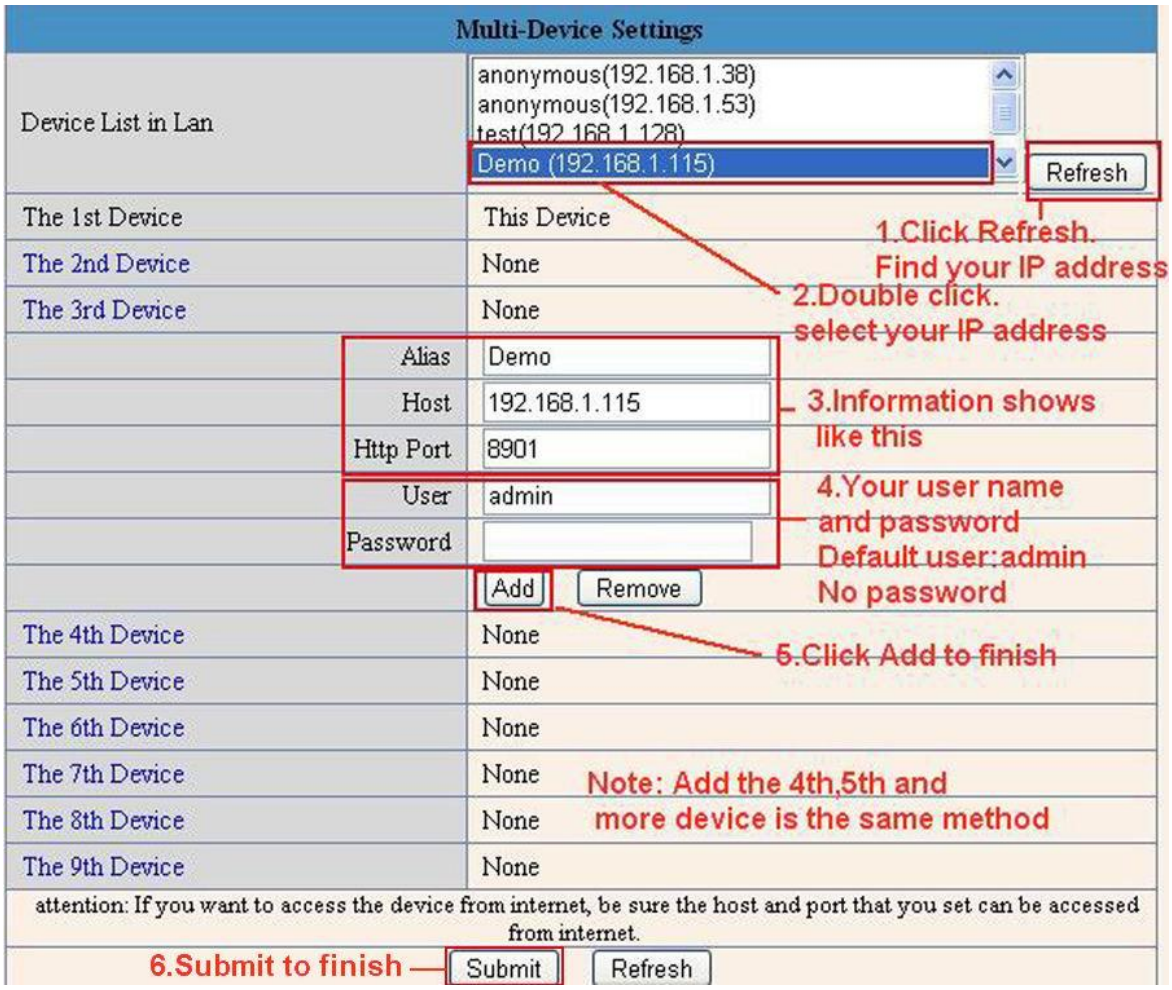


Figure 4.7

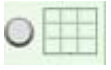
Click **Live Video** and then select to see four channels, or click  to see nine channels.

Figure 4.8

Figure 4.9

3.1.2 Set Multi-Device for WAN

If you want to view cameras from internet, you have to add these devices by DDNS domain name. Make sure all these cameras you want to add have been set DDNS successfully. (View 3.7 **DDNS Service Settings**) And also these cameras work well with DDNS.

Login the first camera by DDNS domain name and port, this camera will be as the host camera.

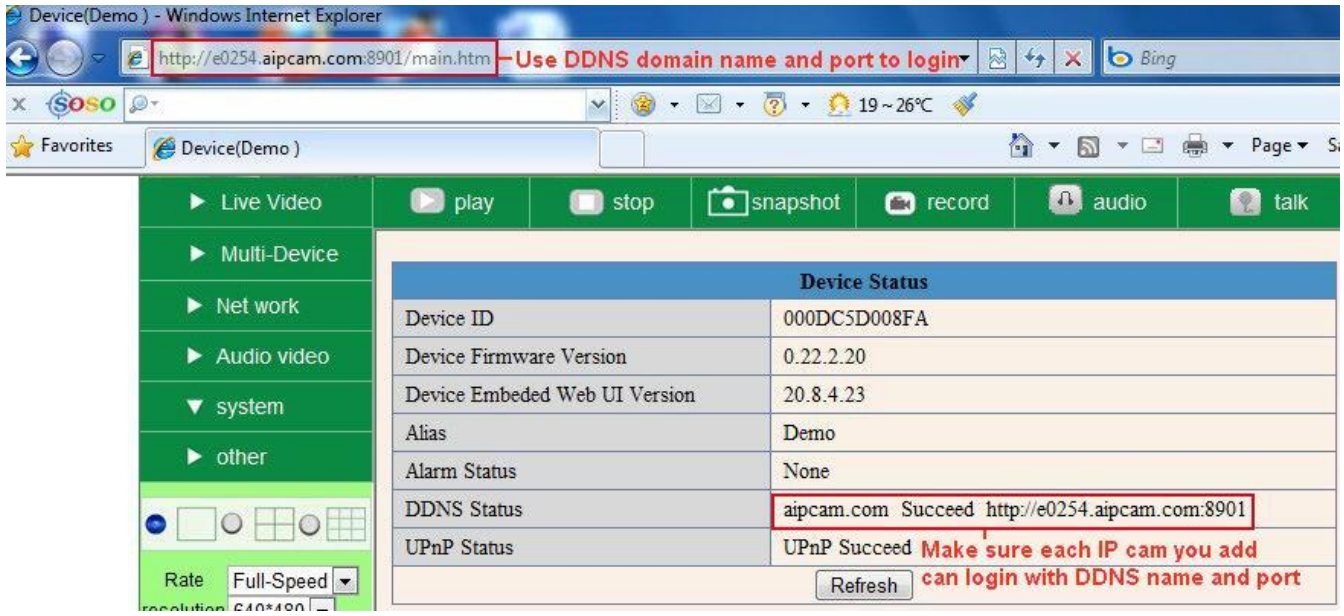


Figure 5.0

Click **Multi-Device**, select **Multi-Device Settings**. Choose **the 2nd Device;** fill in the 2nd camera's Alias, Host, Http Port, User, Password by manual, click **Add**. Set more devices in the same way, after all done, please click

Submit.

NOTE: The Alias is optional; you can set the alias as per your wish. The Host must be the camera's DDNS domain name, and without "**http://**", it's not the Lan IP address.

If you have several cameras, you can use the same DDNS domain name, just set different port number for each different camera.

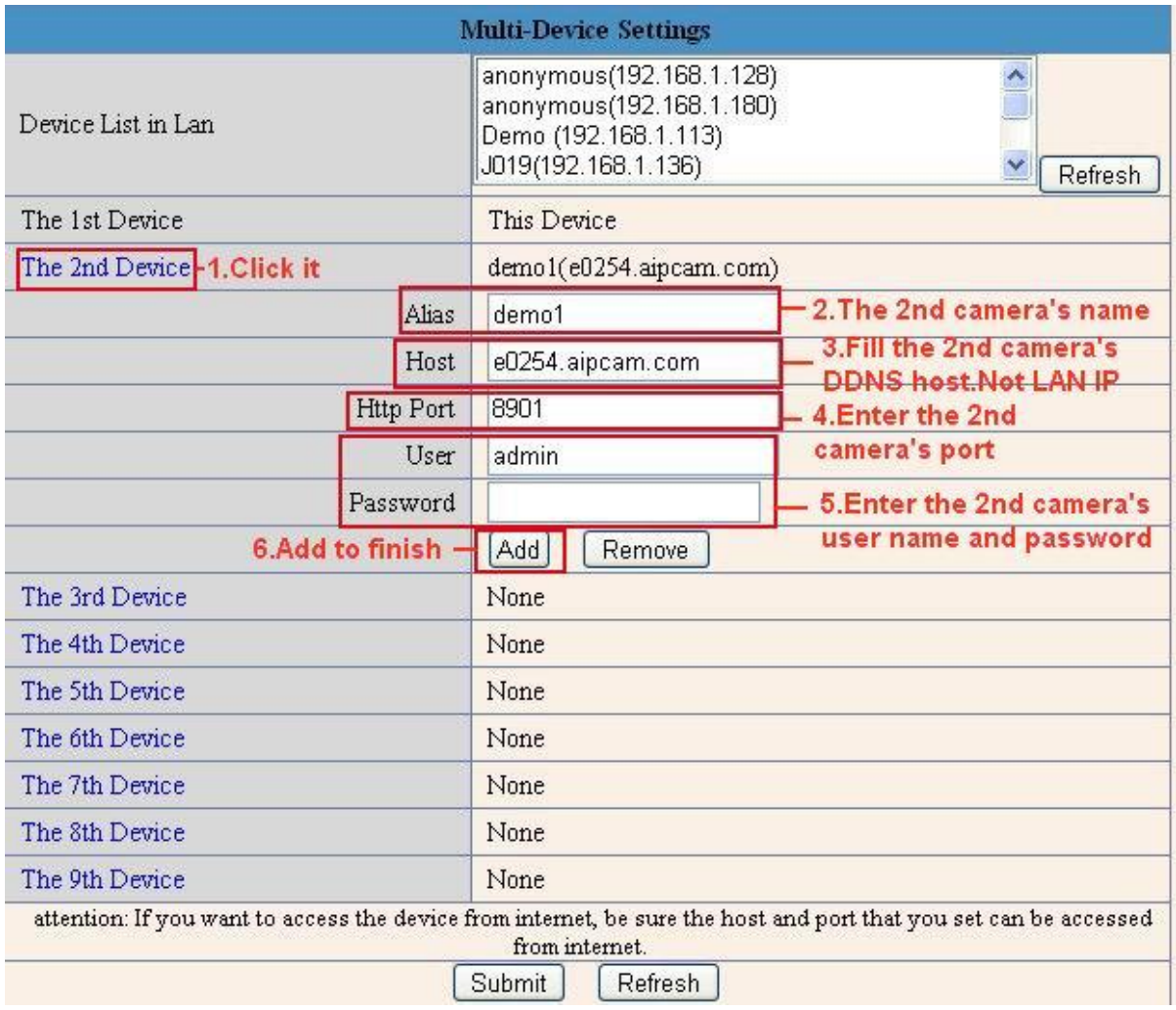


Figure 5.1

Note: Add the other camera in the same way, Click **submit** to add all of them.

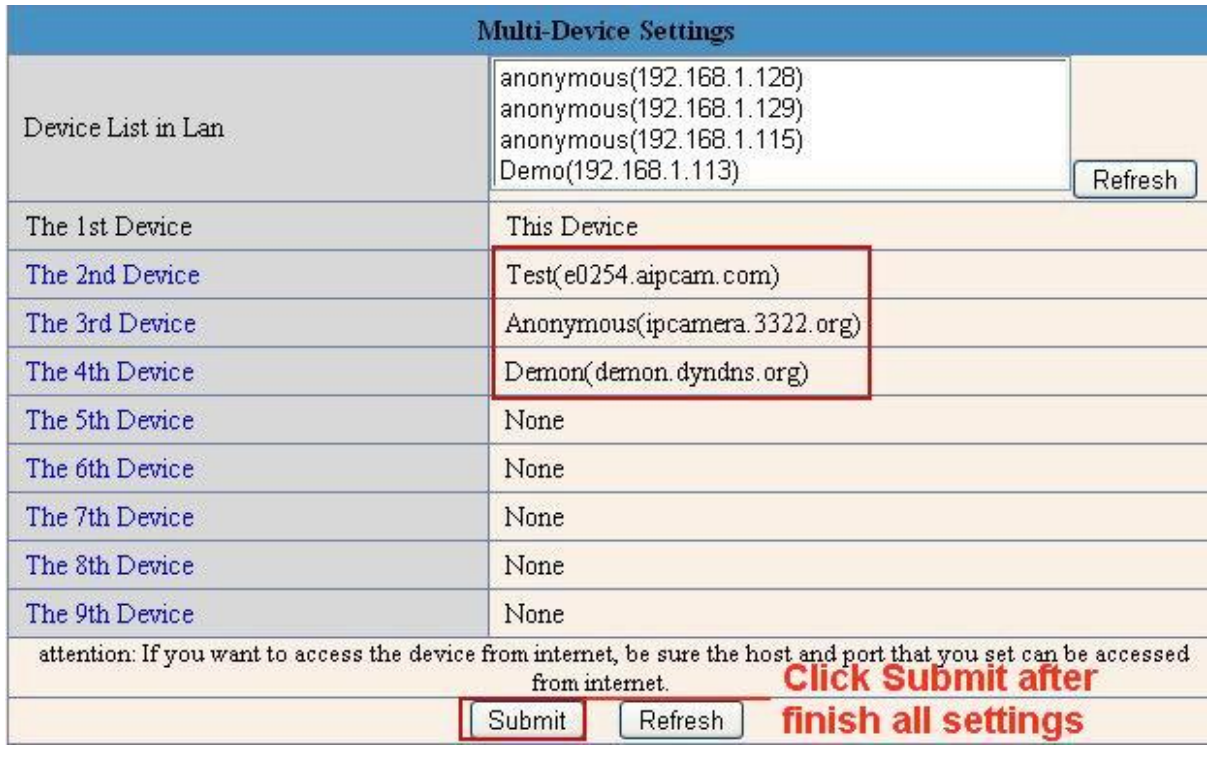


Figure 5.2

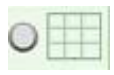
Click **Live Video** and then select to see four channels, or  to see nine channels.
In this case, you can see all the cameras from a remote position by internet, for example, if you are on the business trip, you can use the first camera's (Host camera) DDNS to view all the devices via internet

Figure 5.3

3.1.3 Upgrade Device Firmware

If you want to upgrade the camera, please upgrade Device Firmware first, then upgrade Web UI.
Click **Browse** and choose correct bin file, then click **Submit** to do upgrading.
NOTE: Before doing upgrade via Browser, please make sure the IP Camera Tool of your computer could find the camera's IP.
Attention: Please must keep the power on during upgrading, and the better use wired mode.
Please don't try upgrade freely, because wrong operation or incorrect upgrade bin file will damage the camera.

Figure 5.4

3.1.4 Restore Factory Settings

Click **Restore Factory Settings**, will pop-up a prompt, select **OK**, all the parameter will be returned to factory settings, and the device will reboot.

Figure 5.5

3.1.5 Reboot Device

Click **Reboot the device**, will pop-up a prompt, select **OK**, then the device will reboot

Figure 5.6

3.2 Network Settings

Click **Network**, will pop-up the prompt as below:

3.3 Basic Network Settings

Here you can fix the camera's IP address; means set the static IP address of camera manually. You can also do the same settings from IP Camera Tool. (Figure 2.3)

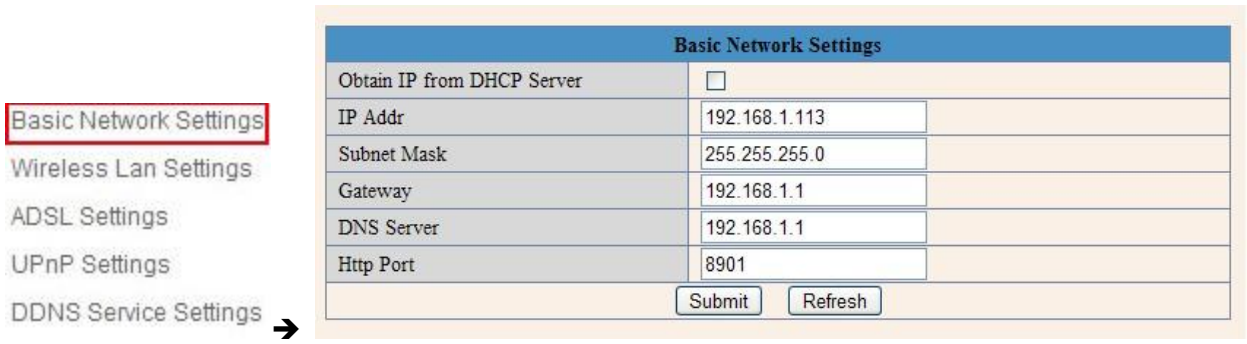


Figure 5.7

If you don't know Subnet Mask, Gateway, DNS Server. Please check the Local Area Connection Status of your computer; it contains all these information, steps as below:

1. Control Panel➔Network Connections➔Local Area Connections➔ Support ➔ Details

2. Find the local connection icon from **taskbar**, left click it, choose **Support ➔ Details**

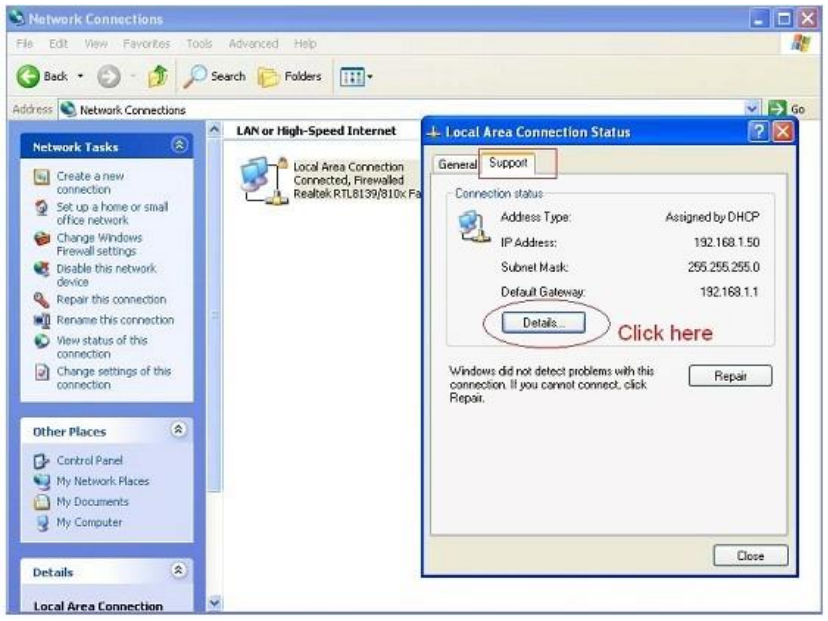


Figure 5.8

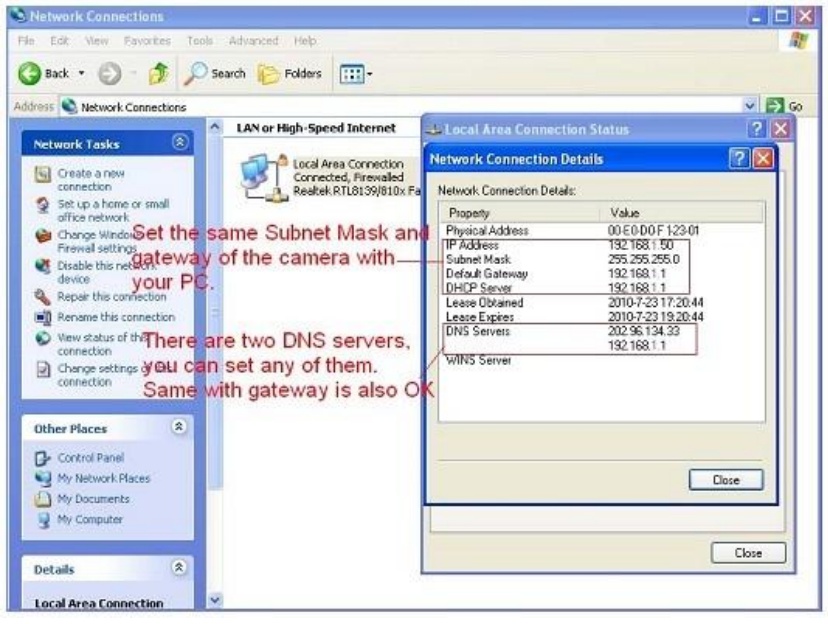


Figure 5.9

If you don't know the DNS Server, you can set it the same as Gateway.

If the router supports DHCP function, you can choose "Obtain IP from DHCP Server" to get dynamic IP.

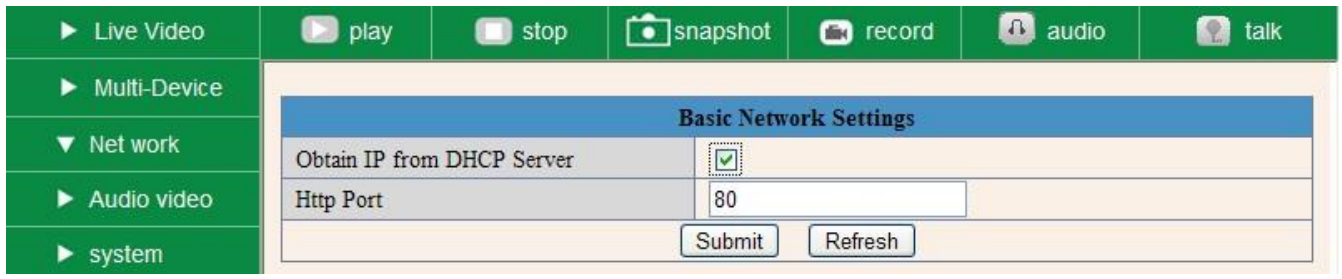


Figure 6.0

Http Port: In most cases, you can leave this value as however, if your Internet Service Provider blocks this port, you may change it to another port number such as 85.

3.4 Wireless Lan Settings

Figure 6.1

1. Make sure the router is wireless router.
2. Make sure the Wi-Fi antenna installed.
3. Make sure whether there is encryption of the WLAN of router, if there is encryption, keep the key.
4. Login the camera, click "**Network**">"**Wireless Lan Settings**">"**Scan**", please scan 2 times, then you will find the WLAN from the list, choose the one you use. (Figure 6.2)
5. If there is no encryption, just click "**Submit**". (Figure 6.4)
6. If there is encryption, please input the share key, then click "**Submit**". (Figure 6.5)
7. Wait about 30 seconds, the camera will reboot, then unplug the network cable.

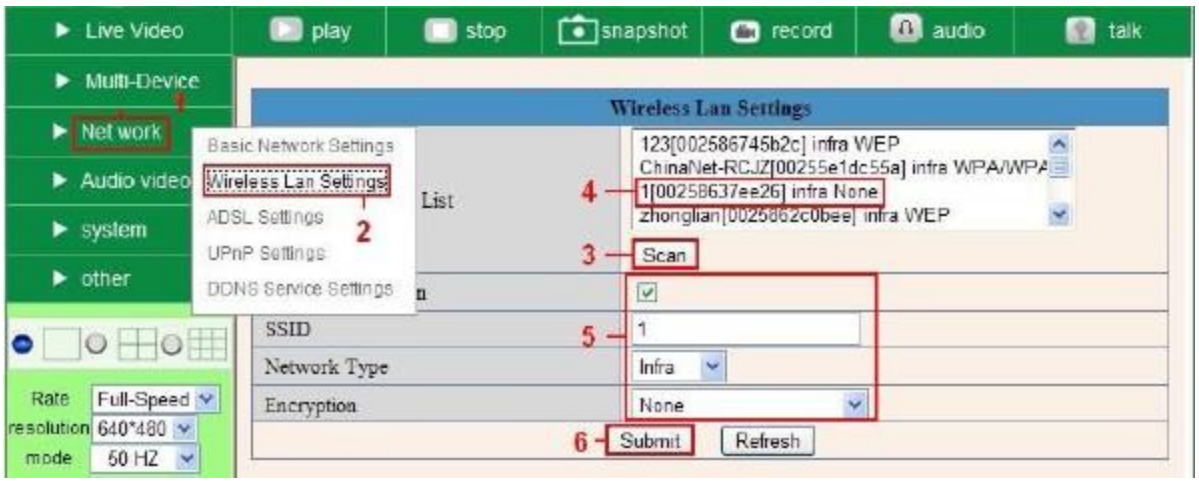


Figure 6.2

Figure 6.3

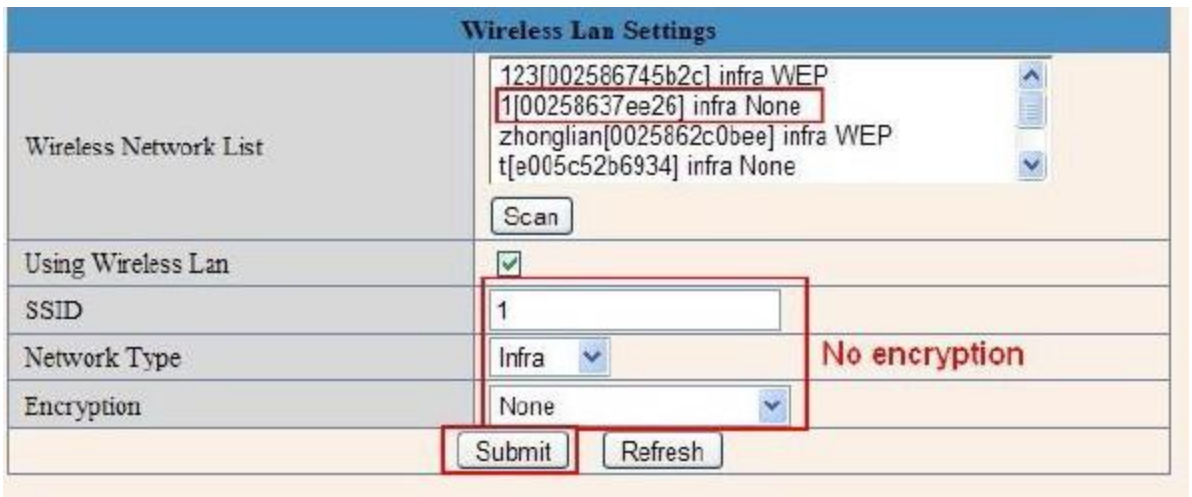


Figure 6.4

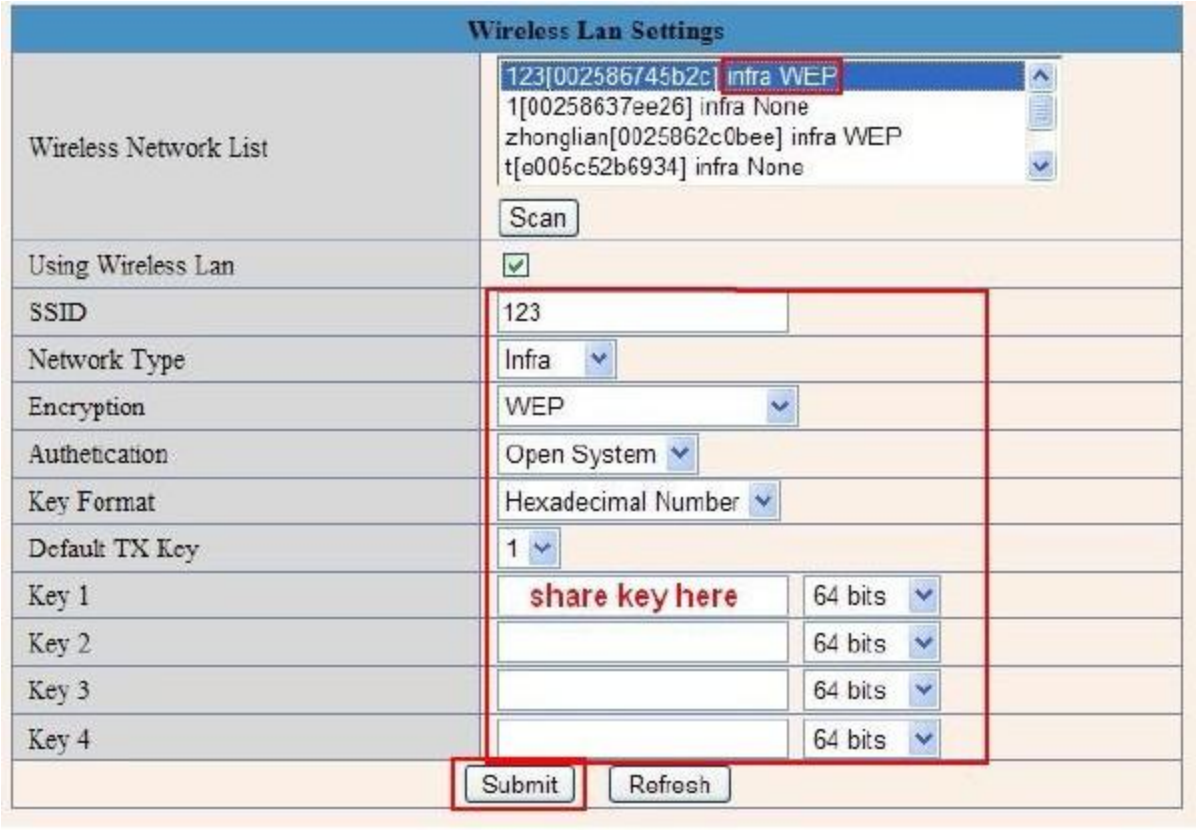


Figure 6.5

3.5 ADSL Settings

When connected to the Internet through ADSL directly, you can enter the ADSL username And password obtained from ISP.

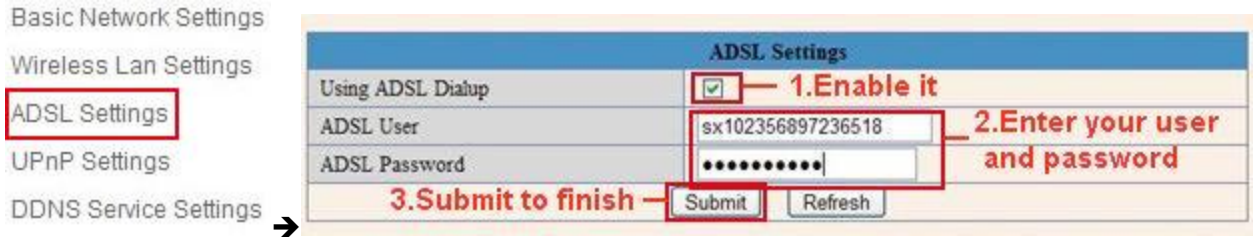


Figure 6.7

3.6 UPnP Settings

Click **UPnP Settings** to choose **Using UPnP to Map Port**:

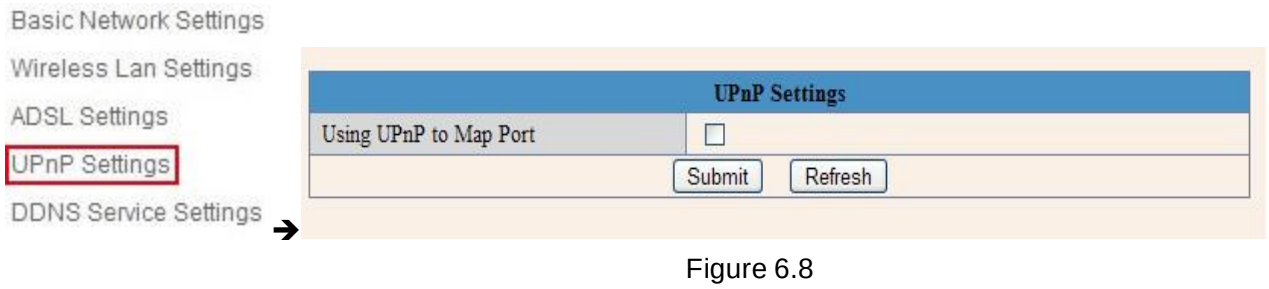


Figure 6.8

Select it and click **Submit**, then the camera will support UPnP port forwarding automatically.
It's helpful for using DDNS, if your router support UPnP, then you no need do port forwarding in router.

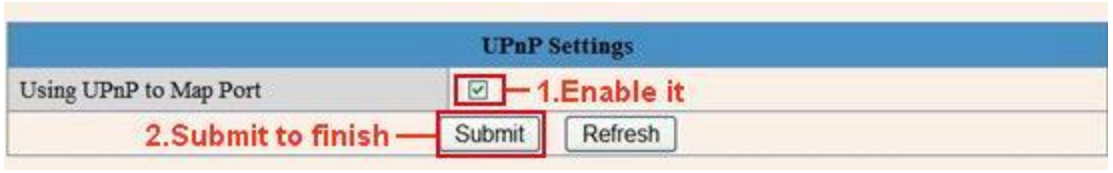


Figure 6.9

NOTE: Here UPnP only for port forwarding now. It has much relation with security settings of your router, make sure the UPnP function of router is ON.
Attention: If your router doesn't support UPnP function, it may show error information. So we recommend you do port forwarding manually in your router. (Details see Figure 7.4-7.9)

3.7 DDNS Service Settings

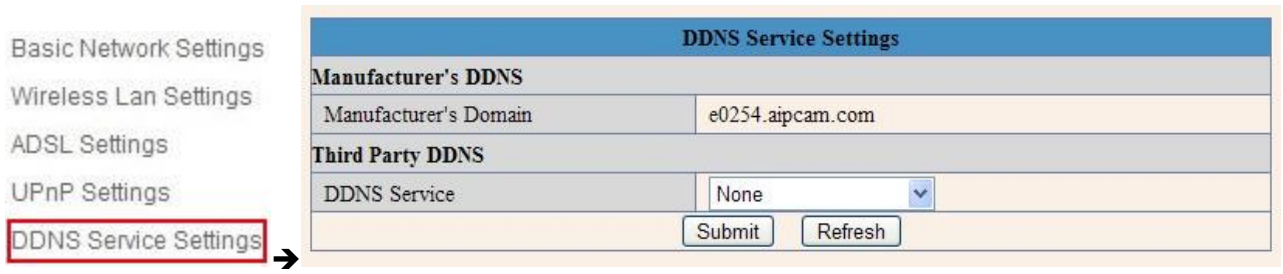


Figure 7.0

There are 2 options:

Manufacturer's DDNS: This domain is provided by manufacturer.

Third Party DDNS: This domain is provided by the 3rd party, such as Dyndns, Oray, 3322 etc.

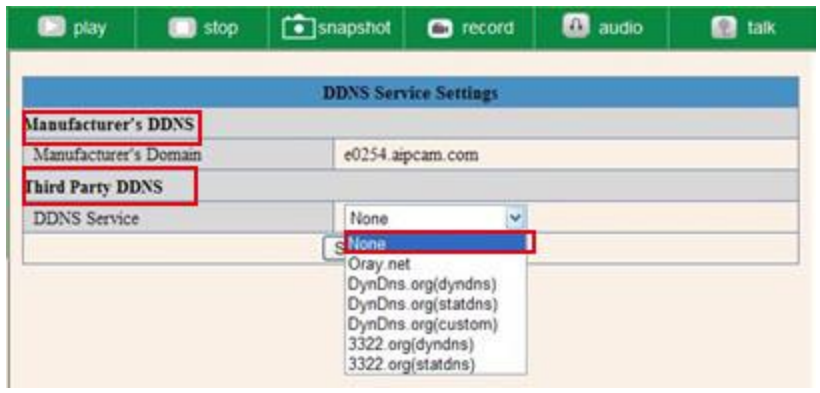


Figure 7.1

Third Party DDNS

If you use third party DDNS, please choose the server you use, such as "3322.org" or "dyndns.org" as below:

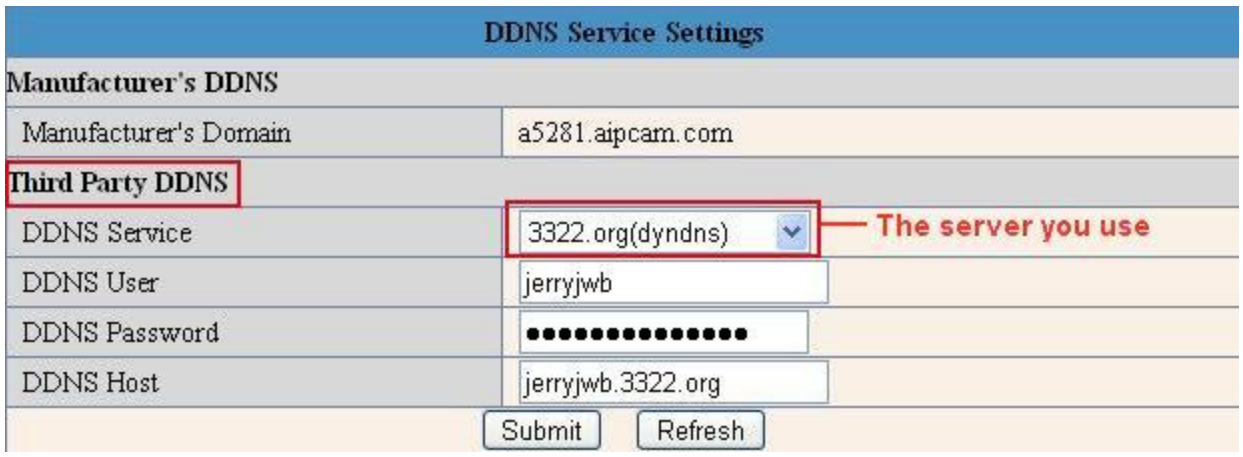


Figure 7.2

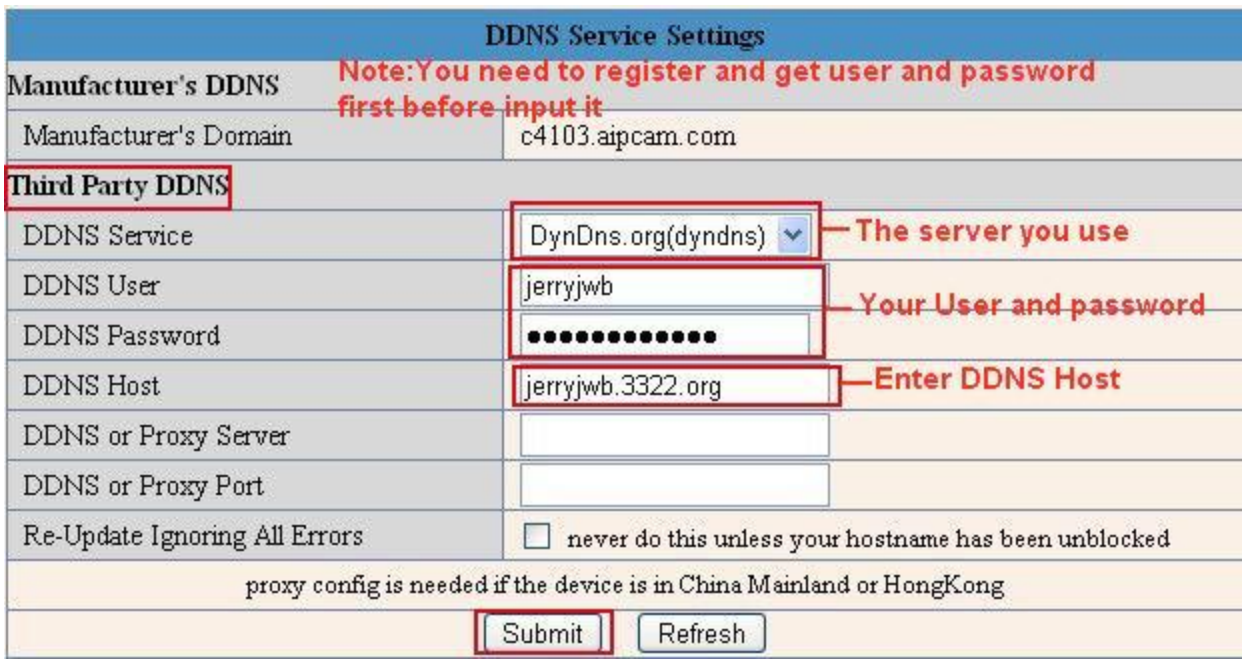


Figure 7.3

You have to register an account firstly, keep the user, password, host, then input it.

NOTE: Only one DDNS can be chosen, for example, if you use manufacturer's DDNS, the 3rd one won't work, if use the 3rd DDNS, the manufacturer's one won't work.

Change the camera's port.

The default port of camera is "**80**", please change "**80**" to any other one you like, such as "**81**", "**100**", "**8091**" etc. Click "**OK**", the camera will reboot, wait about 30 seconds.

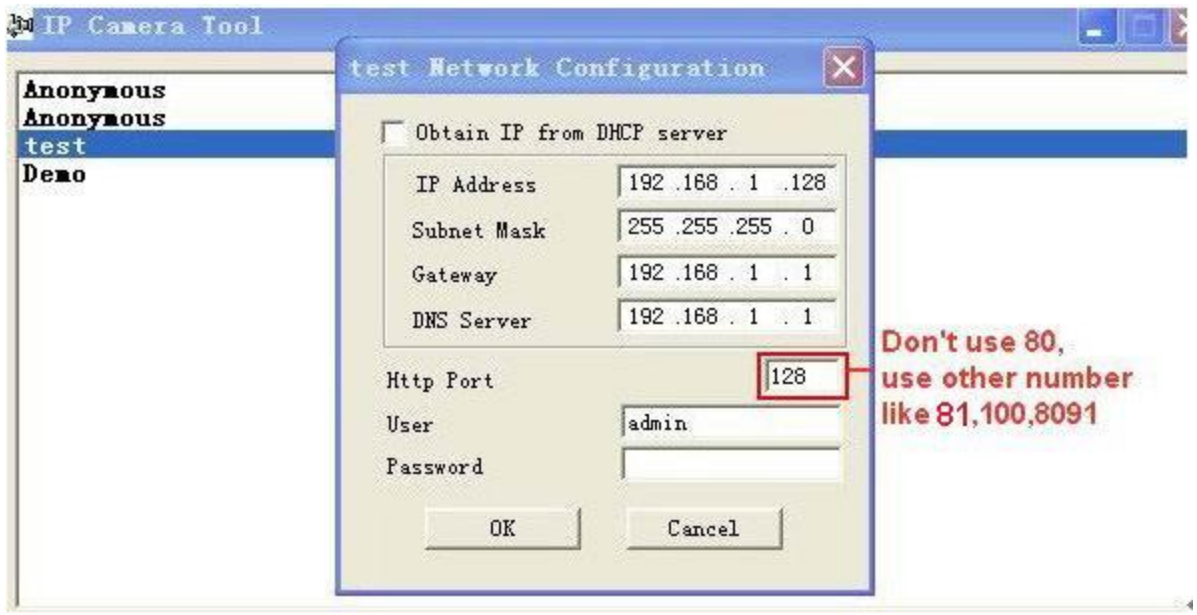


Figure 7.4

Make sure the "**Subnet Mask**", "**Gateway**", "**DNS Server**" is the same as your router.

Set Port Forwarding in the router.

This is the most important step. Set port forwarding in router refer to the IP of your camera correctly, then the DDNS will work. Because there are so many kinds of routers from all over the world, so it's difficult to show a fix steps, but there are some samples of different routers' port forwarding settings as below, just for reference:

TP-LINK:

1. Login the router.
2. Choose "**Forwarding**", select "**Virtual Servers**"

3. Click the Add New button, pop-up below:

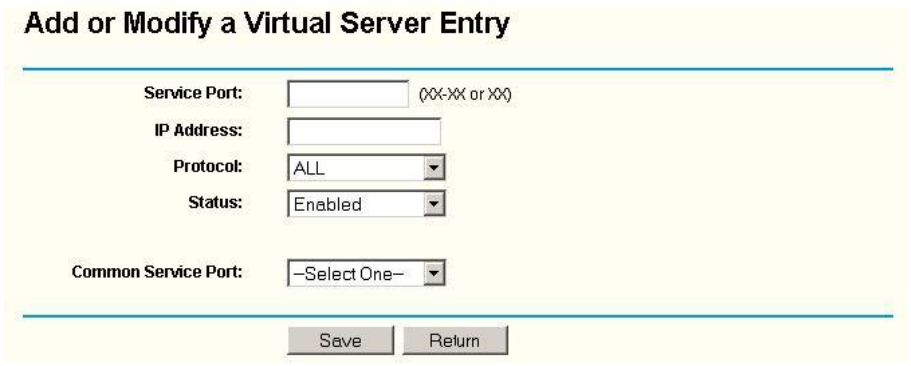


Figure 7.5

Fill the service port (**except 80**), IP address of the camera, then click Save
NOTE: The port and IP address should be the same as Camera.

BELKIN:

1. Login the router.
2. Choose "**Firewall**", select "**Virtual Servers**"
3. Input the port (**except 80**) and IP address, then click save.

NOTE: The port and IP address should be the same as Camera.

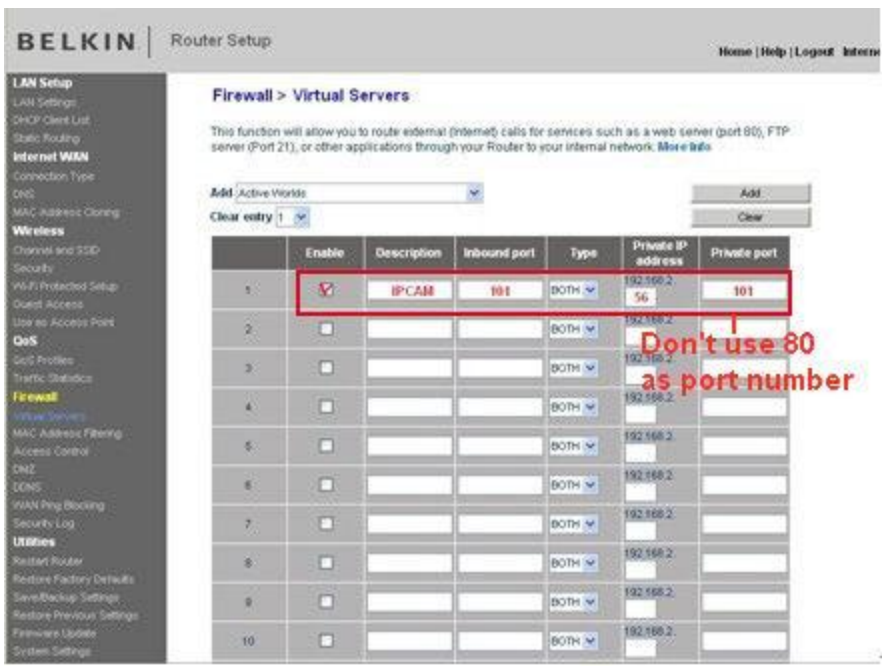


Figure 7.6

DLINK:

1. Login the router.
2. Choose "**Advanced**", select **"Virtual Servers"**
3. Input the port, IP address, Protocol, then click save.

NOTE: The "**public port**" & "**private port**" should be the same as camera's port, choose the protocol to be "**both**".

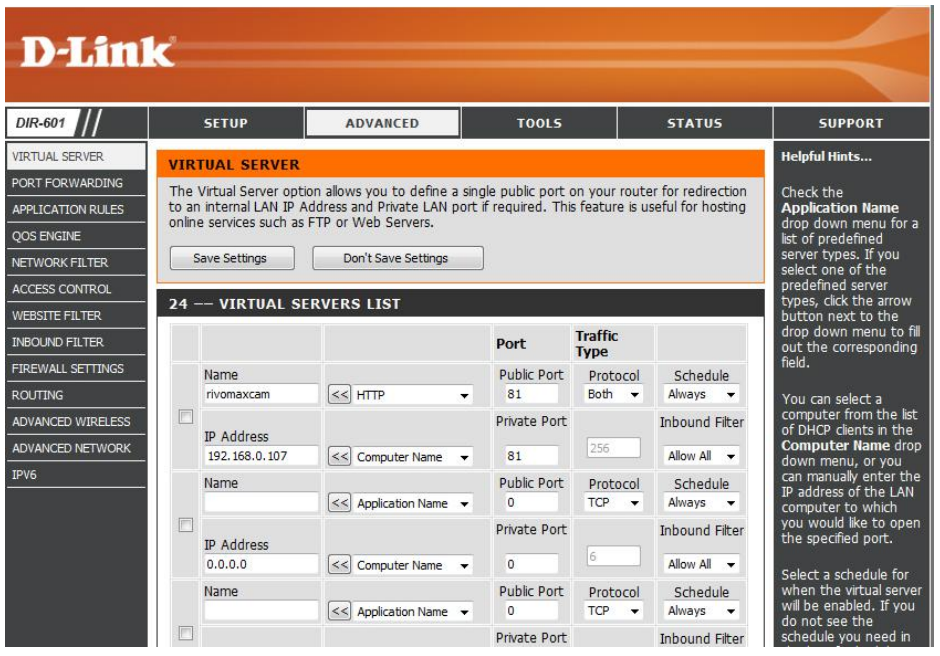

D-Link
DIR-601
SETUP
ADVANCED
TOOLS
STATUS
SUPPORT
VIRTUAL SERVER
PORT FORWARDING
APPLICATION RULES
QOS ENGINE
NETWORK FILTER
ACCESS CONTROL
WEBSITE FILTER
INBOUND FILTER
FIREWALL SETTINGS
ROUTING
ADVANCED WIRELESS
ADVANCED NETWORK
IPV6
VIRTUAL SERVER
The Virtual Server option allows you to define a single public port on your router for redirection to an internal LAN IP Address and Private LAN port if required. This feature is useful for hosting online services such as FTP or Web Servers.
Save Settings
Don't Save Settings
24 -- VIRTUAL SERVERS LIST
Port
Traffic Type
Name
Public Port
Protocol
Schedule
rivomaxcam
HTTP
81
Both
Always
IP Address
Private Port
Inbound Filter
192.168.0.107
Computer Name
81
256
Allow All
Application Name
0
TCP
0.0.0.0
6
Helpful Hints...
Check the Application Name drop down menu for a list of predefined server types. If you select one of the predefined server types, click the arrow button next to the drop down menu to fill out the corresponding field.
You can select a computer from the list of DHCP clients in the Computer Name drop down menu, or you can manually enter the IP address of the LAN computer to which you would like to open the specified port.
Select a schedule for when the virtual server will be enabled. If you do not see the schedule you need in

Figure 7.7

After all these 4 steps done, then you can use the DDNS freely, check the DDNS status from the camera as below, and get the link of DDNS for internet view.

Step: “**Login**”>”**System**”>”**Device Info**”:

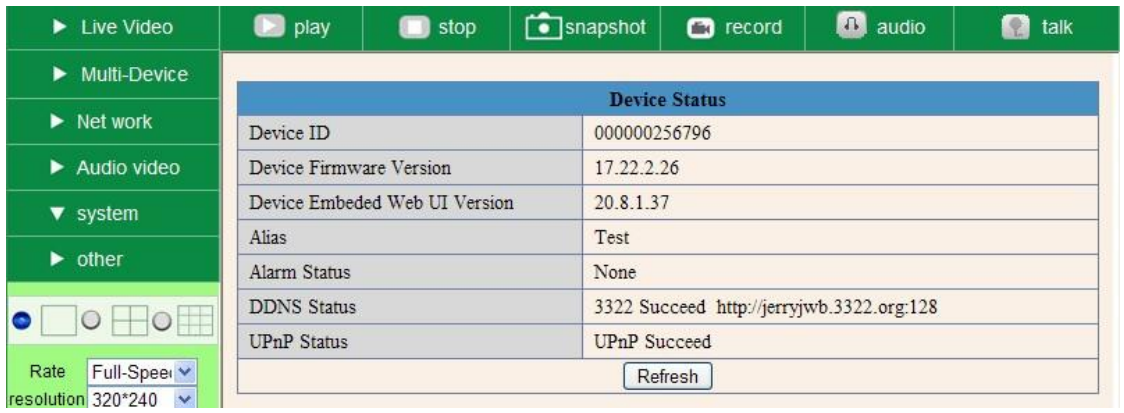


Figure 7.8

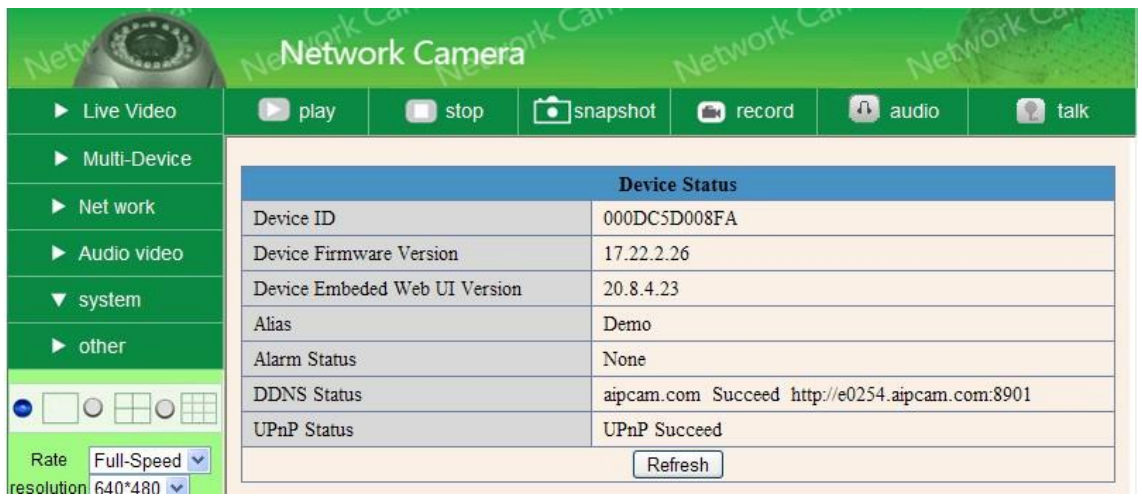


Figure 7.9

3.8 System Settings

Figure 8.0

3.8.1 Device Info

You can find the information about **Device ID**, **Firmware Version**, **Embedded Web UI Version**, Alias, **Alarm Status**, **DDNS Status, UPnP Status and MSN status**.

Device Status	
Device ID	000DC5D008FA
Device Firmware Version	0.22.2.20
Device Embeded Web UI Version	20.8.4.23
Alias	Demo
Alarm Status	None
DDNS Status	aipcam.com Succeed http://e0254.aipcam.com:8901
UPnP Status	No Action
Refresh	

Figure 8.1

3.9 Alias Settings

Default device name is anonymous. You set any new name for your camera here, then click **Submit**.

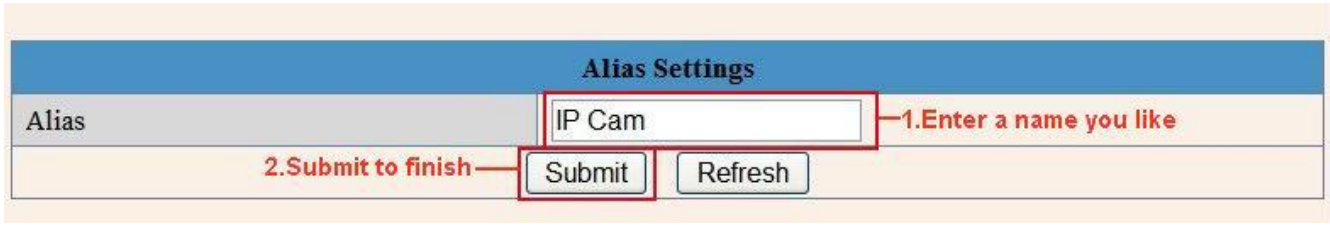


Figure 8.2

3.10 Date &Time Settings

Set the date and time for your camera.
Choose the **Clock Time zone** of your country.
You can choose Sync with NTP Server (Figure 8.3) or Sync with PC Time (Figure 8.4).

Figure 8.3

Figure 8.4

3.11 Users Settings

Eight accounts are acceptable for this system. Here you can set the user names and password as Administrator, Operator or Visitor, the permission for them as below:

- **Visitor:** In this mode, you can only view. (Details 2.7)
- **Operator:** You can control the direction of IP Camera and set some parameter. (Details 2.8)
- **Administrator:** You can setup the advanced configurations of the IP Camera. (Details3.1-3.22)

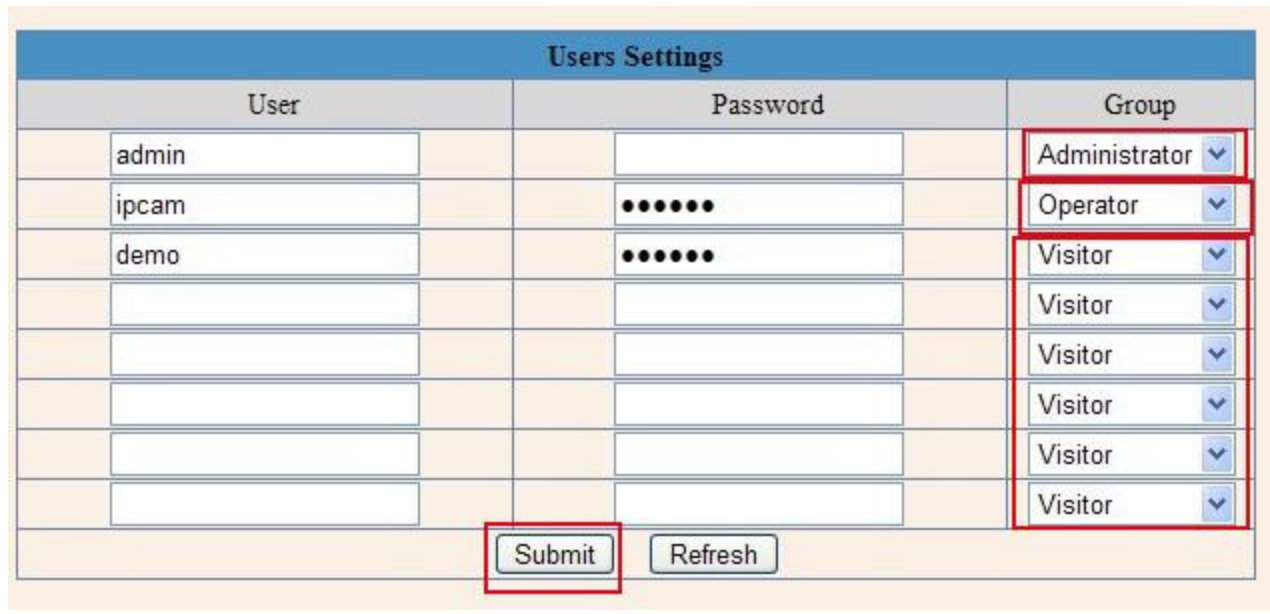


Figure 8.5

3.12 PTZ Settings

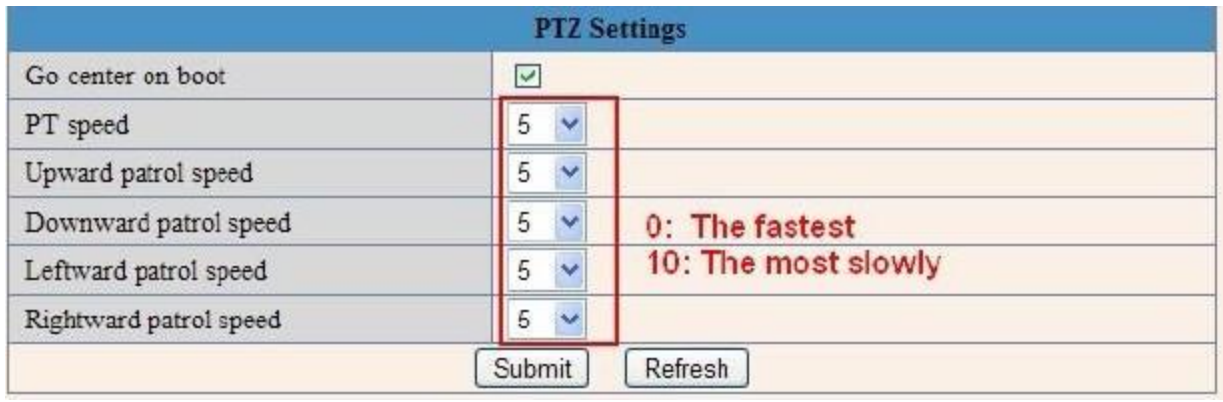


Figure 8.6

1. Go center on boot: The camera rotate to the center automatically when it starts
2. PT speed: Set Pan / Tilt speed
3. Upward patrol speed: Set the speed of cruising upward
4. Downward patrol speed: Set the speed of cruising downward
5. Leftward patrol speed: Set the speed of cruising leftward
6. Rightward patrol speed: Set the speed of cruising rightward
NOTE: Value 0 means the fastest, value 10 means the slowest. In order to protect the camera's motor, we recommend that setting the speed to value 5.

3.13 Indicator Settings

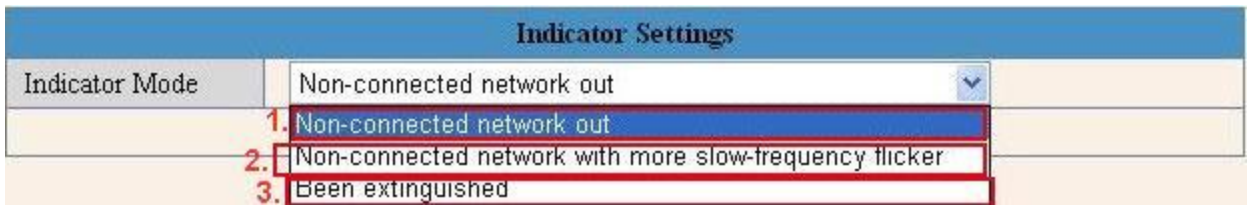


Figure 8.7

Set the pilot lamp mode, the following three options:
(1) **Non-connected network out**: Twinkle while connect to the internet and turn off when departed
(2) **Non-connected network with more slow-frequency flicker**: Twinkle while connect to the internet and more slower when departed
(3) **Been extinguished**: Keep OFF

3.14 Backup & Restore

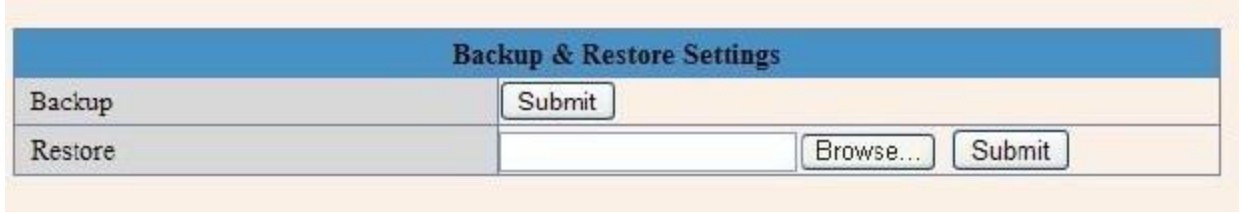


Figure 8.8

（1）**Backup**: Backup IP Camera all the Parameter, if you want to save all the current settings that you have set already, you can click **Submit**, then all the parameters you set will store as a parameters bin file.

（2）**Restore**: Restore IP Camera all the Parameter, if you want to change the camera's settings to a certain status which has a backup, click **Browse** to load the bin file, then **Submit** it.

Log

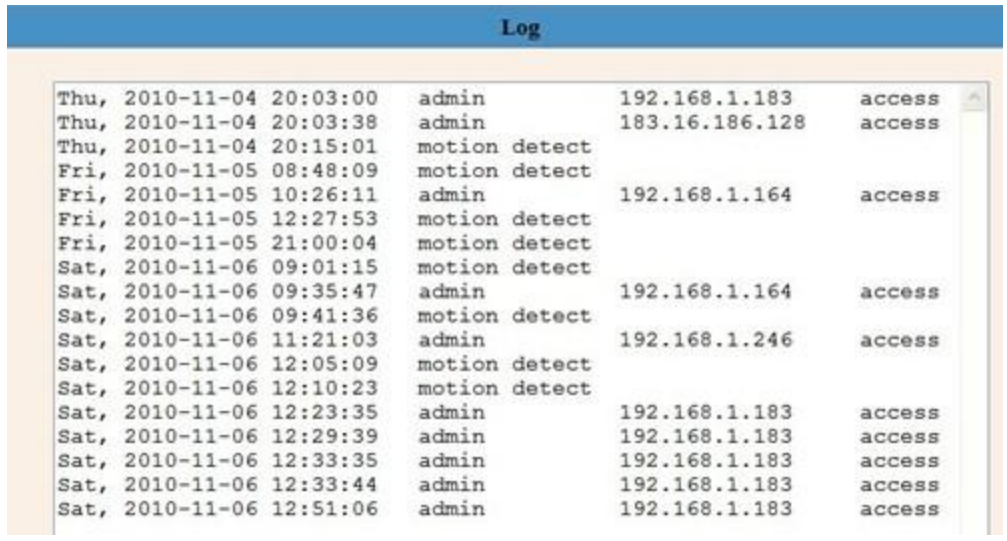
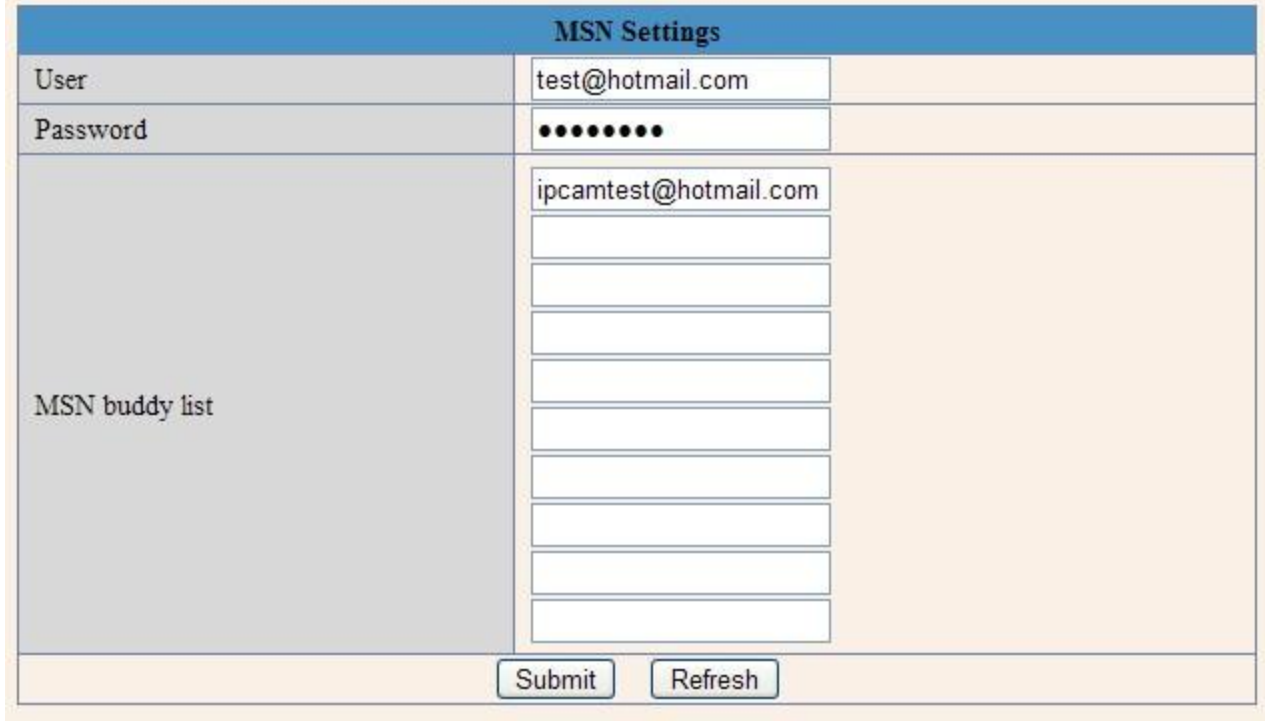


Figure 8.9

Record User information, including weekday, date, time, user name, visitor IP address etc.

MSN Settings



NOTE: Set the port forwarding sucessfully before setting MSN (Refer to port forwarding in DDNS settings). Then get to the MSN settings page, fill in the correct user name and password, add the MSN buddy, max. upto 10 friends, after submit, the user will be shown in your MSN friend list.

Click System—Device Info to check the MSN status.

Device Status	
Device ID	00EA2162836A
Device Firmware Version	17.22.2.36
Device Embedded Web UI Version	20.8.1.82
Alias	DEMO_011
Alarm Status	None
DDNS Status	cipcam.com Succeed http://a5790.cipcam.com:91
UPnP Status	UPnP Succeed
MSN Status	Succeed
	Refresh

After it, run your MSN, open the chat dialog, type in the word "**url?**", after a few seconds, you will get a reply for the remote access ip address for this ip camera.

3.15 Other Settings

Figure 9.0

Here you can configure some additional functions such as **Motion Detection**, **Alarm**, **IO Linkage, Schedule**, **FTP Upload**, **Alarm Mail Alert**, **Record Path** etc.

3.16 Mail Service Settings

Set **Mail Service Settings** to enable the camera send email alert when motion detection triggered**.**

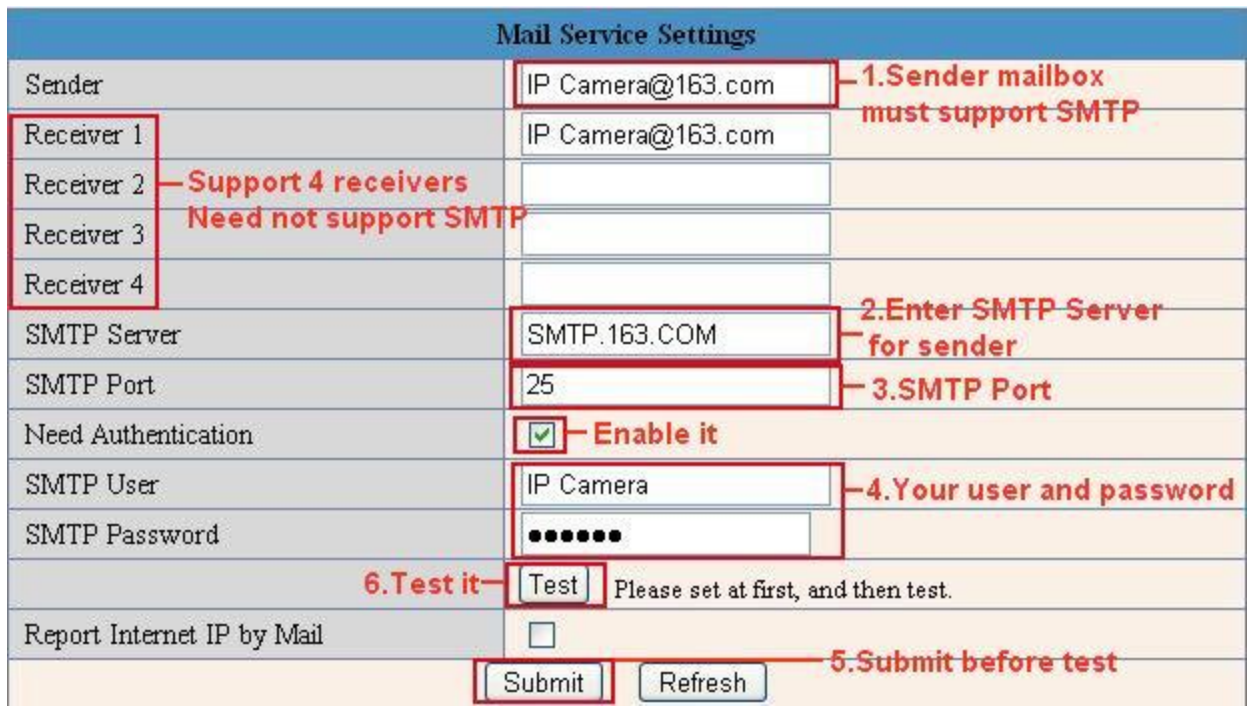


Figure 9.1

Sender: Make sure the sender mailbox server provider support SMTP, and the mailbox should not enable SSL or TSL encryption too.

Receiver: Here you can set four receivers. For receiver, there is no SMTP limitation.

SMTP Server: The sender's SMTP Server.

SMTP Port: The sender's SMTP Port, usually is 25, some SMTP server have its own port such as 587.

Need Authentication: If there is SMTP user & password, please select authentication.

SMTP User: Input correct SMTP User here. Some SMTP User is the sender's full email address, such as **test@qq.com**, some are without suffix, only the username, such as **test**.

SMTP Password: Input correct SMTP password here.

NOTE: Please click **Submit** firstly before choosing **Test**.

You will see the test result after click **Test**.

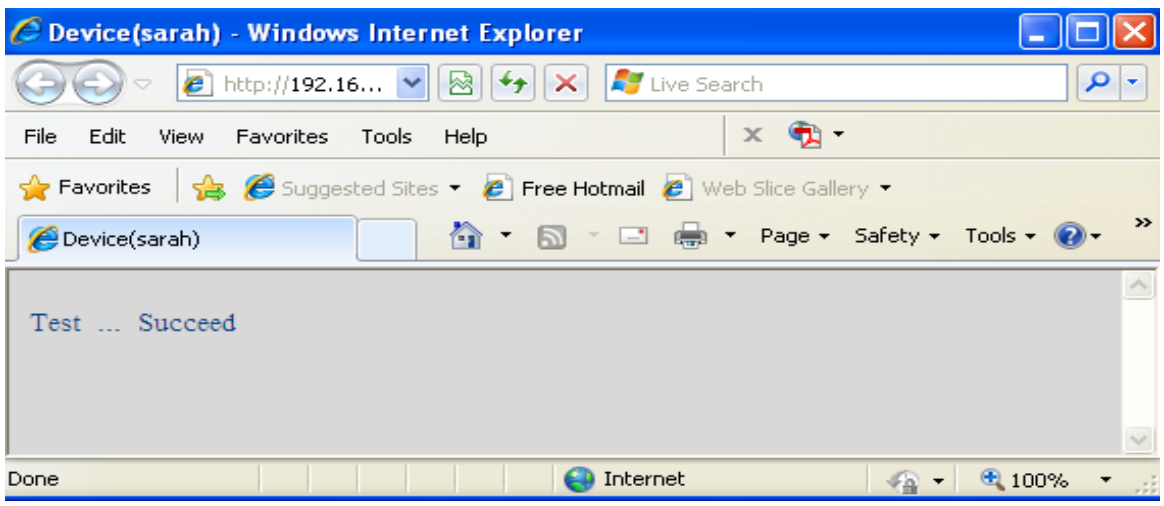


Figure 9.2

If it prompts these following errors when you click **Test**. Please check whether the information you filled in are incorrect. Make sure all of them are correct and try it again.

1) Can not connect to the server
2) Network Error. Please try later
3) Server Error
4) Incorrect user or password
5) The sender is denied by the server. Maybe the server need to authenticate the user, please check it and try

again
6) The receiver is denied by the server. Maybe because of the anti-spam privacy of the server
7) The message is denied by the server. Maybe because of the anti-spam privacy of the server
8) The server does not support the authentication mode used by the device

Report Internet IP by Mail: If select it, you will receive emails which contain the camera's internet IP. When camera power on or Internet IP changed, it will send the internet IP by mail. (For example: IPCAM's URL is http://121.213.109.69:1008).

3.17 FTP Service Settings

Set the **FTP Service**, you can upload images to your FTP server when motion detection triggered.

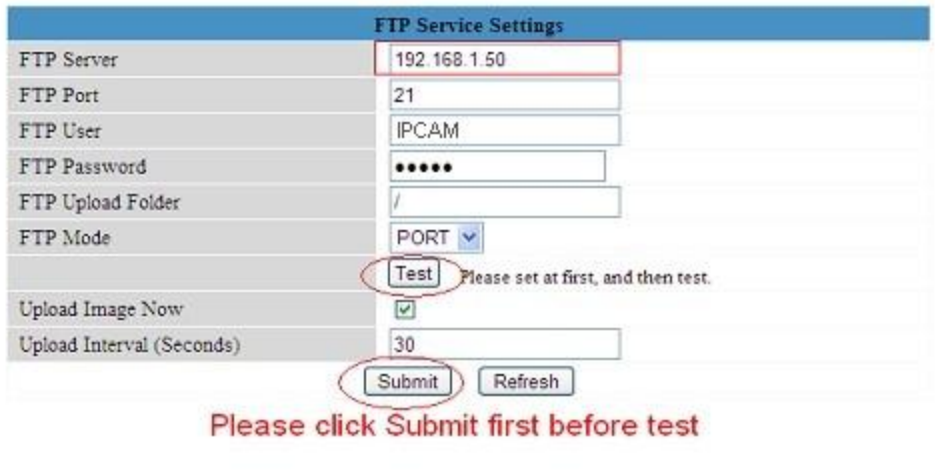


Figure 9.3

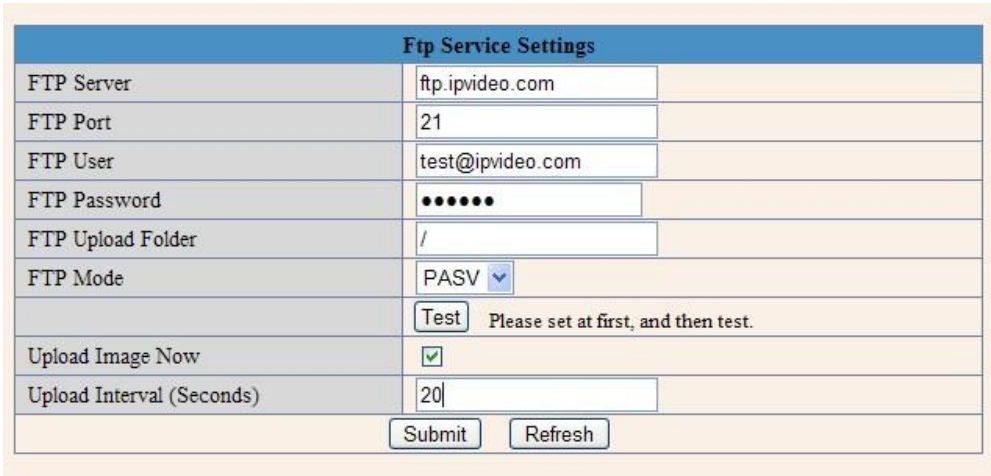


Figure 9.4

FTP Server: If your FTP server is set up in LAN. You can set as Figure 9.3
If you have a FTP server can be accessed from internet. You can set as Figure 9.4
FTP Port: Usually the port is 21
FTP Upload Folder: Make sure that the folder you plan to store images exists. For camera couldn't create the folder itself. Also, the folder must be erasable.
FTP Mode: It supports standard (POST) mode and passive (PASV) mode
Upload Image Now: It will upload images when you selected it. Here **Upload Interval** refers to the time between the current image and the next image.
NOTE: Here upload image now means it can upload images freely, no need alarm triggered.

Click **Submit** after these settings. Then click **Test**. You will see the following picture.

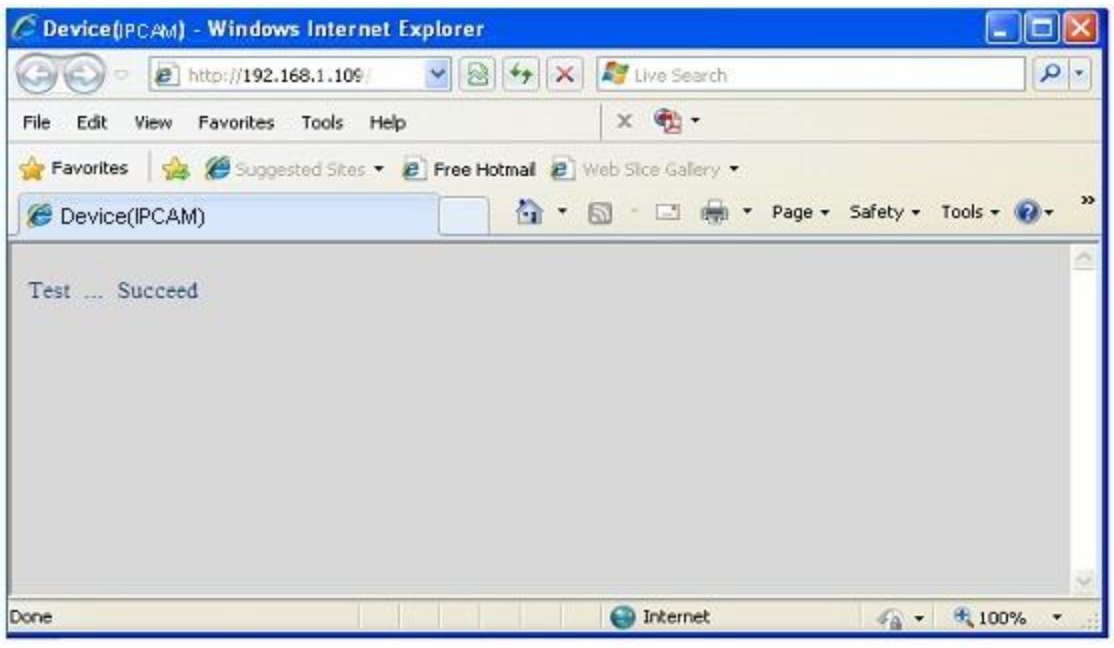


Figure 9.5

If it prompts error information as follows.

1) Can not connect to the server. Please check FTP Server is correct or not.
2) Network Error. Please try later.
3) Server Error.
4) Incorrect user or password. Please check the username and password is correct or not.
5) Can not access the folder. Please be sure the folder exists and your account is authorized
6) Error in PASV mode. Please be sure the server support PASV mode
7) Error in PORT mode. PASV mode should be selected if the device is behind a NAT
8) Can not upload file. Please be sure your account is authorized

Please check if parameters you filled in are correct or not. The format of image is like 000DC5D008FA (IPCAM) _0_20101115152525_25.jpg

Please check if your FTP server supports this format of file name

3.18 Alarm Service Settings

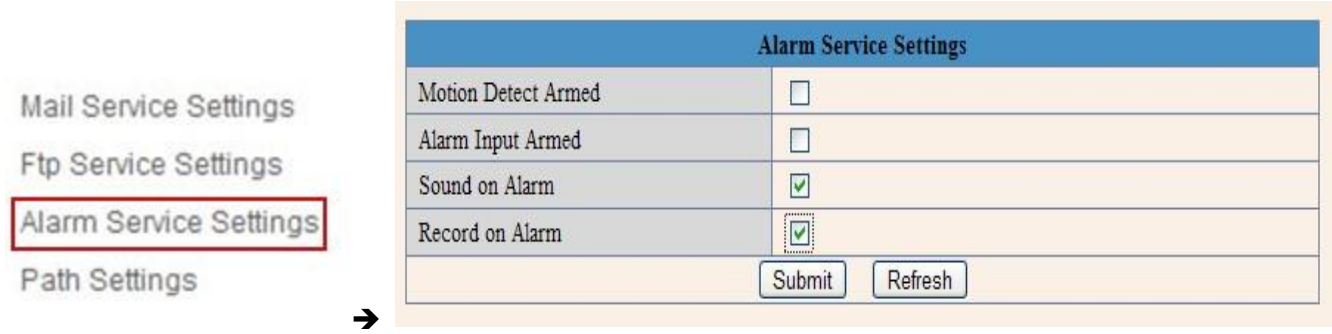


Figure 9.6

Enter **Alarm Service Settings** page to configure Motion Detection function.

3.18.1 Motion Detect Armed

If enable **Motion Detect Armed**, it will record and make a sound of alarm when there is motion detection

triggered.

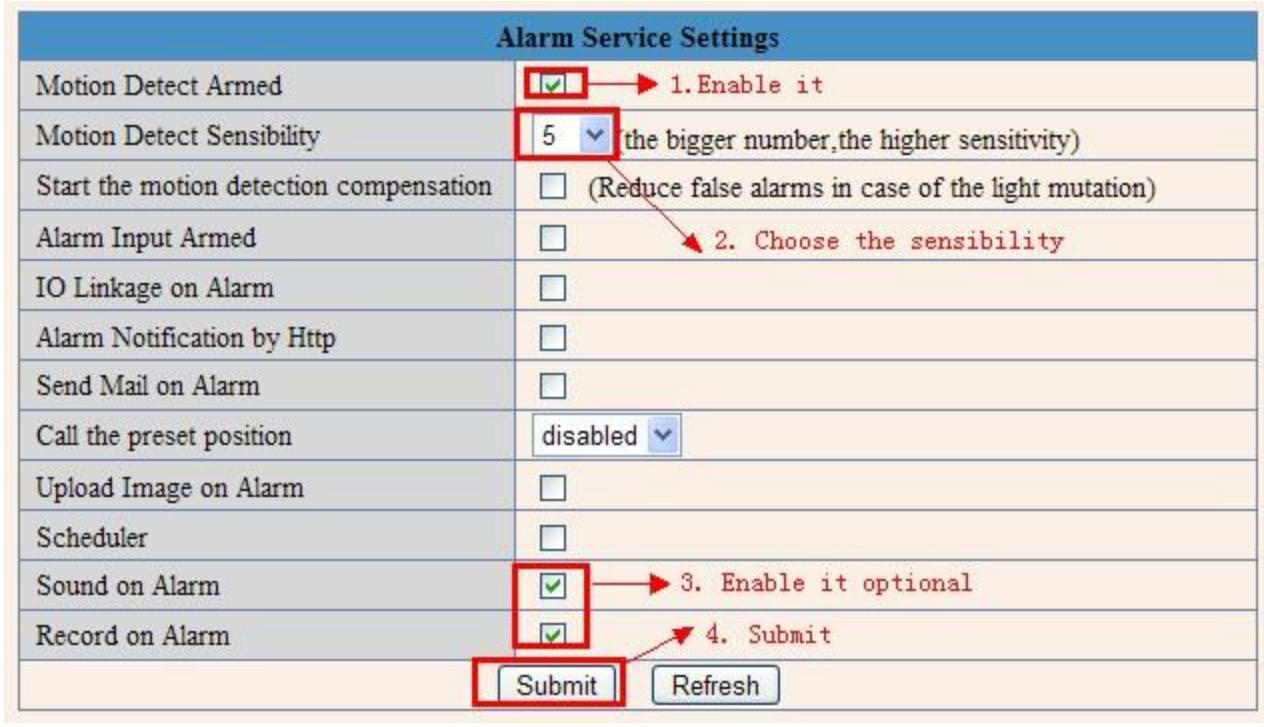


Figure 9.7

After enable motion detect armed, if there is motion triggered, the **Alarm Status** will turn to **Motion Detect Alarm**. (Figure 9.8)

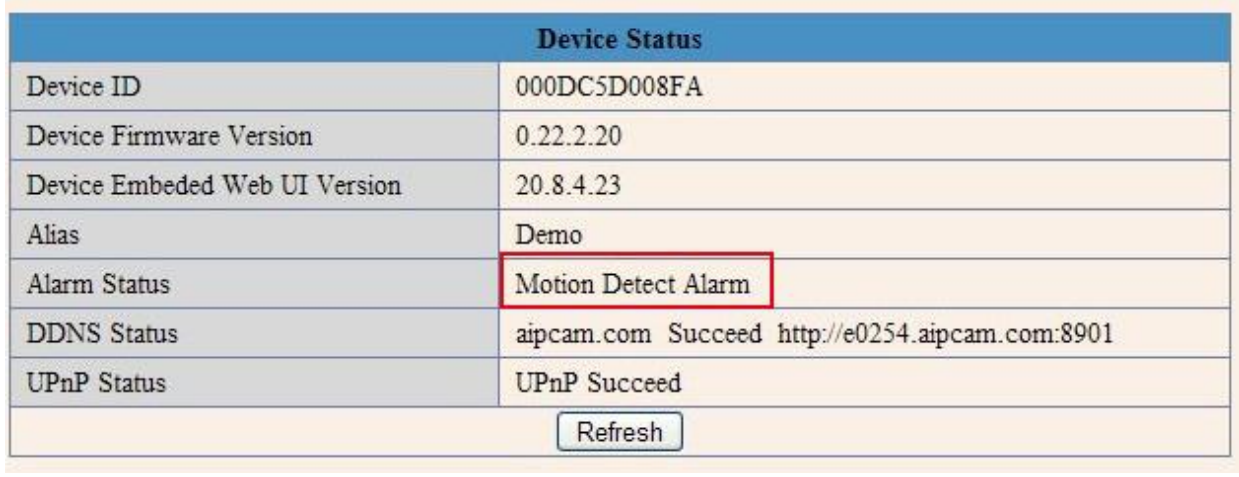


Figure 9.8

3.18.2 Motion Detect Sensibility

You can choose level 1-10; level 10 means the most sensitive, 1 means the least of all.

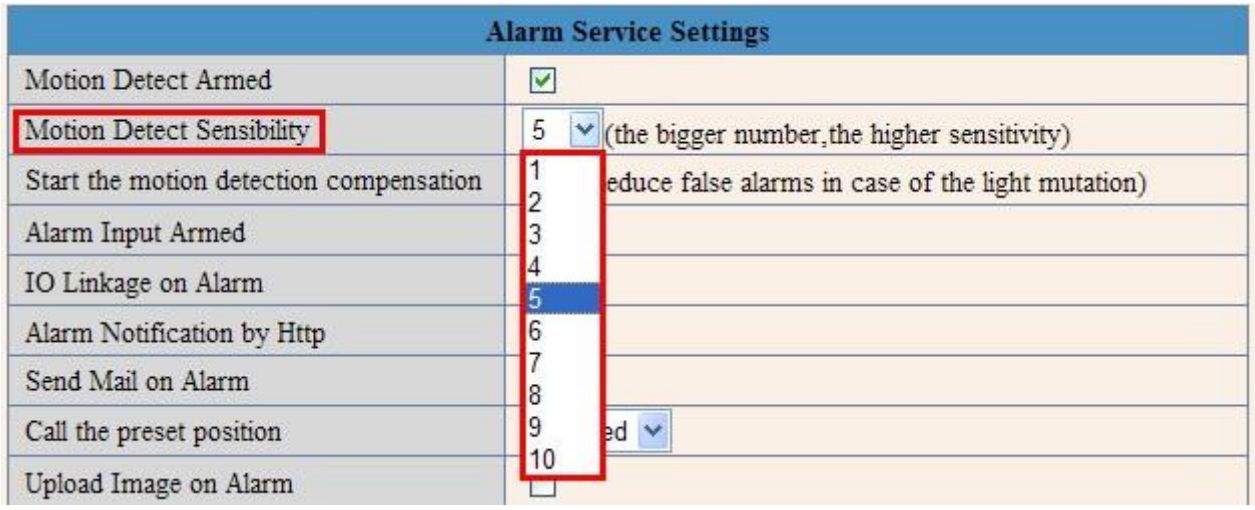


Figure 9.9

3.18.3 Alarm Input Armed / IO Linkage on Alarm

If you want to connect external alarm devices, when it's an alarm input device, choose **Alarm Input Armed** to enable it, when it's an output device, choose **IO Linkage on Alarm** to enable it.

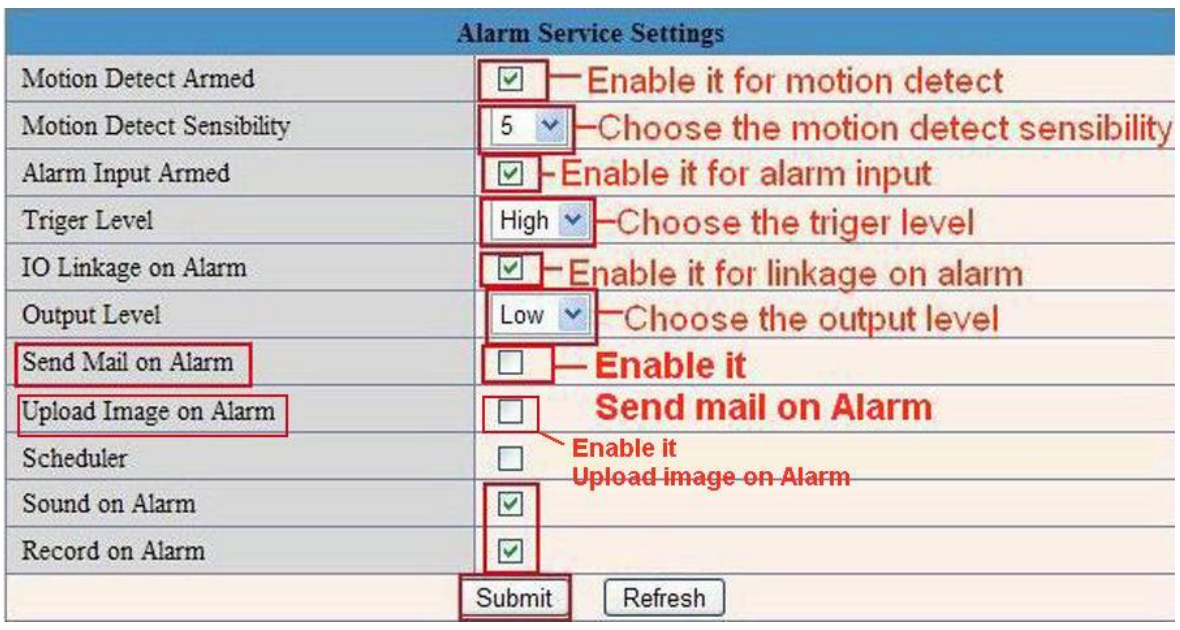


Figure 10.0

There are two options for **Trigger Level**. (Figure 10.1)
High: When the external alarm device is close, then the alarm triggered.
Low: When the external alarm device is switching off, then the alarm triggered.

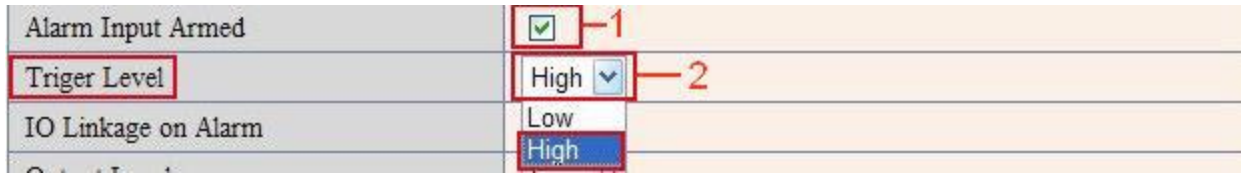


Figure 10.1

There are two options for **Output Level**. (Figure 10.2)
High: Choose it, the IO Pins work as a switch which is closed.
Low: Choose it, the IO Pins work as a switch which is switching off.

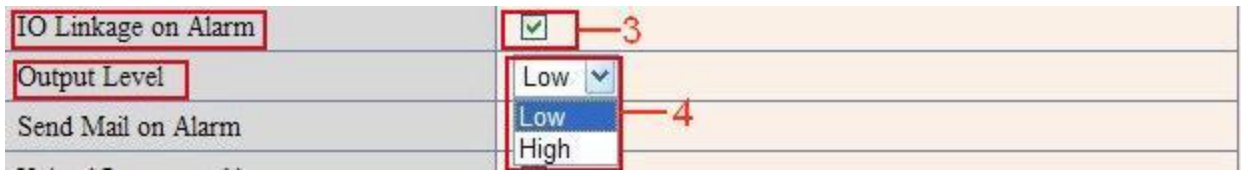


Figure 10.2

3.18.4 IO Pins for IO Alarm Linkage

Figure 10.3

I/O PINS: 1 .Alarm input 2 Alarm input 3 Alarm output 4 Alarm output

Input pins: The input pins can be used for 1-way external sensor input. For example, you may connect a Person Infrared Sensor (PIP) to it for motion detection. When external sensor triggered, IP CAMERA can be programmed to send an email with picture or control the internal relay output.
If you link an external alarm device with Pin3 and Pin4, when select **Alarm Input Armed** (Figure 10.0), external alarm is enabled.
Output pins: The output pins can enable IO linkage on alarm.
You can also use & to control IO output Switch ON/OFF (See Figure 4.4).
NOTE: All the pins work as switch only.

3.19 Send Mail on Alarm

Choose it, it will sent picture and mail inform to customer's e-mail once alarmed. (Firstly you should finish the Mail Service Settings. Figure 9.1)
NOTE: It usually will send 6 snapshots by one email to your mailbox for each alarm triggered. Each alarm will last for 60 seconds.

Upload Image on Alarm
Enable **Upload Image on Alarm** to set upload images to FTP once alarmed.
Upload Interval: Set the upload interval (Seconds).
NOTE: The total alarm time is 60 seconds.

Figure 10.4

Scheduler

Here you can set the camera alarm during the time you set. Choose Scheduler and set the date & time range. (Figure 10.5) From Monday to Sunday, and every day divide into 24 hours, each hour divide into 4 quarters.

Left click the frame of the time range, it will turn to blue color, means the time you choose armed.
Click it again, it will turn back to grey, means delete the scheduler.
NOTE: Make sure the date & time settings are correct firstly. (Figure 8.3)
ATTENTION: If you don't choose **Scheduler**, the camera will alarm anytime when motion triggered.

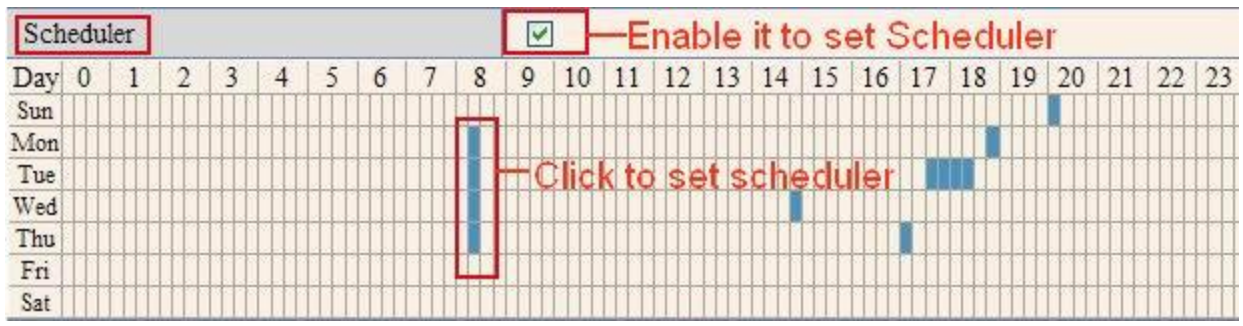


Figure 10.5

Sound on Alarm
When motion detection triggered, there will be beep sound during the alarm, you can control this sound here.
Enable it, there will be sound once alarmed.
Cancel it, there will be no sound once alarmed.

Record on Alarm
If you want the camera do recording for every alarm, choose Record on Alarm to enable it.
If you do not want the camera do recording once alarm triggered, cancel it here.

Figure 10.6

Once alarm occurred, there will be some representation:
1. The corresponding status light turns Red and keeps blinking.

Figure 10.7

2. If you set **Sound on Alarm**, plug an earphone or a speaker to the computer you use, you can hear the beep sound when alarmed. (Figure10.6)
3. If you set **Record on Alarm,** the camera will record automatically for approx one minute. You can find the record file in the folder which you set. (Figure 10.9)
4. If you set **Send Mail on Alarm**, you will receive email alarm alert once motion triggered. (Figure 10.0)
5. You can also set **Scheduler** to enable the camera sends emails during a special time range you want. (Figure 10.5)
6. If you set **Upload Image on Alarm**, it will upload images to the FTP Server you set already once alarmed. (Figure 10.4)
NOTE: Each alarm only last for approx one minute, all these above functions for motion detection triggered only.

REC Automatically and Save to PC
When you enable motion detect and open the camera monitoring page on the PC. If there is an alarm triggered, REC will start automatically for several seconds and save to the PC.

New Feature: Start the motion detection compensation and Alarm notification by Http.

3.20 Path Settings

Figure 10.8

Here you can set record path and alarm record path for the camera.

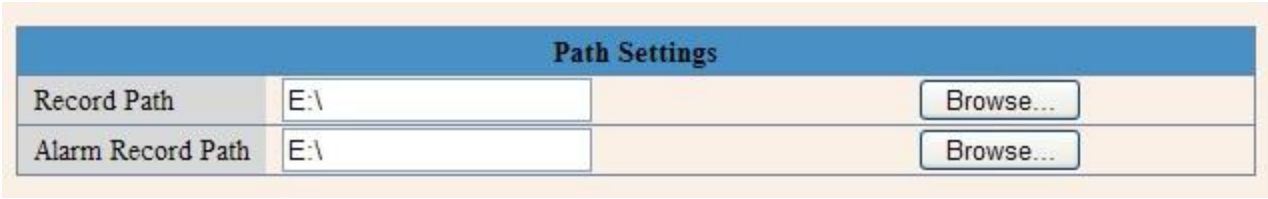


Figure 10.9

Record Path: Here you can set the manually record path. Click record, then start manually record, the record file will be saved to the specified path here set.

Alarm Record Path: Here you can set the alarm record path. When the motion triggered, and record enable, it will start alarm record automatically, the record file will be saved to the specified path here set.

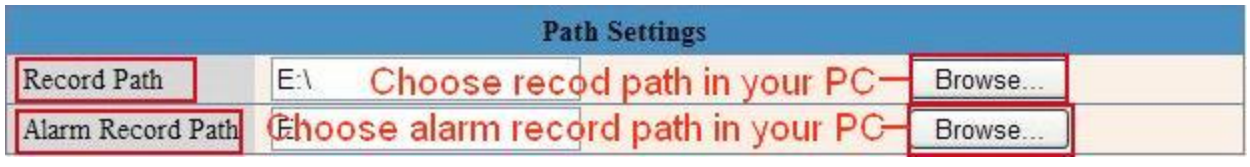


Figure 11.0

NOTE: If you couldn't set the path here in Windows 7 or Vista, please do it as below:

Windows7 or Vista's security level is higher than Windows XP/2000, for "**Path Settings**"

1. User could add the Device IP address to the IE's 'Trusted sites' firstly. The step is: "**IE browser→Tool→Internet Proper→Security→Trusted sites→Sites→Add**".
2. You can also run the IE as administrator, input the IP address of the camera manually. (Figure 11.1)

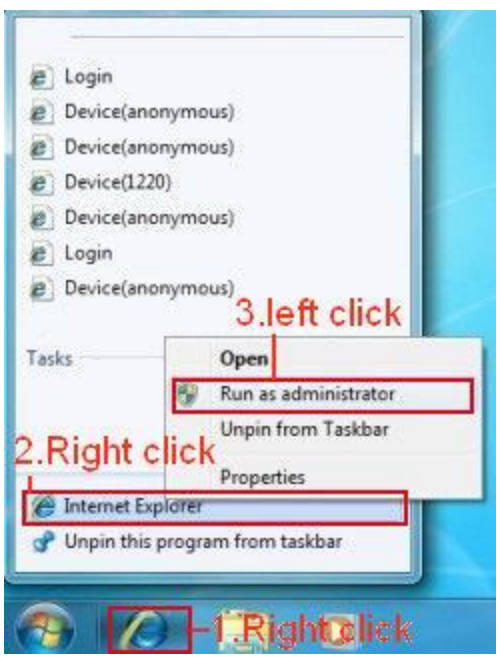


Figure 11.1

3.21 Server Push Mode (For Safari, FireFox, Google Browser)

Choose **Server Push Mode**, login the camera, you will see the main user interface as below:

Figure 11.2

NOTE: Server Push Mode does not support ActiveX.

Play, Stop, Record, Audio, Talk, Multi-device settings, Path settings functions are controlled by ActiveX, so if you use Safari, Firefox, Google chrome browser, it is impossible to find these options.
The other functions are the same as **ActiveX Mode (For IE Browser)**

3.22 Sign in mobile phone

If you are using a mobile phone, choose **Sign in mobile phone**, login the camera, you will see the main user interface as below:

Figure 11.3

NOTE: Mobile phone Mode doesn't support ActiveX.
In mobile phone mode, it only supports some easy functions, such as **Resolution, Mode, Bright, Contrast, Pan/Tilt control, Snapshot, Reversal, Mirror, IO Linkage** functions

4. APPENDIX

4.1 Frequently Asked Questions

Note: Any questions you would meet, please check Network connections firstly.
Check the working status revealed by the indicators on the network server, hub, exchange and network card. If abnormal, check the network connections.

4.1.1 I have forgotten the administrator username and/or password.

To reset the administrator username and password, press and hold down the RESET BUTTON for 15 seconds. Release the power button and the username and password will be reset back to the factory default administrator username and password.
Default administrator username: **admin**
Default administrator password: No password

4.1.2 Subnet doesn't match, dbclick to change

If IP Camera Tool shows error information "Subnet doesn't match, dbclick to change!" Please choose **Obtain IP from DHCP server**. (Figure 2.2)
If it still show this error after obtain IP from DHCP server. Please check local area connection of your computer, change subnet, gateway of the camera. Keep them in the same subnet of your computer. (Figure 2.3)

4.1.3 IP Address configuration

Check whether IP address of the IP camera server shares the same subnet as your work station: Click **My Computer >Control Panel> Network & Dial-up Connections > LAN > Attributes >Internet Protocols (TCP/IP)**, and check **IP Address** and **Subnet Mask**. Make sure they are in the same subnet when configuring Camera's IP address manually.

4.1.4 Can't access IP camera in internet

There are some reasons:
1 ActiveX controller is not installed correctly (see more details: Figure2.9~Figure3.1).
2 The port which camera used is blocked by Firewall or Anti-virus software. Please change another port number and try again. (Figure3.2)
3 Port forwarding is not successful (see more details: Figure7.4~Figure7.9)
Double check these settings and make sure they are correct.

4.1.5 IP Camera Tool could not find camera's IP

Please check if the camera works well. Check if network cable is loose or not.
Make sure DHCP is enabled in your router, don't enable MAC address filter.
Make sure that firewall or anti-virus software does not block the camera. You can add the camera as a trusted site in your firewall or anti-virus software.

4.1.6 UPnP always failed

UPnP only contains port forwarding in our recent software. Sometimes, it may be failed to do port forwarding automatically because of firewall or anti-virus software. It also has much relation with router's security settings. So we recommend you do port forwarding manually. You can view your camera in internet successfully after you do port forwarding manually in your router.

4.1.7 Couldn't find the shortcut on desktop after install IP camera tool

If you use Windows7 or Vista, You could not find the shortcut on desktop after install the IP camera tool, please check if the path of the tool port to is correct or not.
For example, as it was pointing to C:\Windows\System32\IPCamera.exe.
Please fix this by pointing the shortcut to the correct path C:\Windows\SysWOW64\IPCamera.exe. After this you could use the shortcut without any problems.

4.1.8 I can't change the record path

When you use Windows7 or Vista, you may be not able to change the record path for the security settings of computer.
1. Please add the camera as a trusted site to solve this issue.
The step is: "**IE browser→Tool→Internet Proper→Security→Trusted sites→Sites→Add**".
2. You can also run the IE as administrator; input the IP address of the camera manually.

4.1.9 I can't find multi-device settings and record icon

Record and multi-device function are controlled by activeX controller.
So if you use Safari, Firefox, Google chrome, it is impossible to use these functions.

4.1.10 Camera can not connect wireless

If your camera could not connect wireless after you set wireless settings and plug out the cable. Please check whether your settings are correct or not. (Details: **Wireless LAN settings**)

Normally, camera can't connect wireless mainly because of wrong settings.

Double check the SSID, Encryption share key, Channel, should be the same as your wireless router.

Share key should not contain special characters, only word and number will be better.

Don't enable MAC address filter.

4.1.11 I can't see other cameras which in multi-device when remote access

If you want to view all the cameras in WAN. Make sure that each camera you add in multi-device settings can be login use DDNS name and port number. Use DDNS domain name to fill in the host checkbox, not camera's LAN IP. Double check your settings. (Details: **Set Multi-Device for WAN**)

4.1.12 Only see black screen or unreasonable code when remote login

If you could access the login page in remote place, it indicates that your DDNS settings are correct. You could not see living video but only some undefined characters, it may be the internet speed problems, especially the camera work on Wi-Fi.

4.1.13 No pictures Problems with ActiveX Controller

If use IE browser to connect the camera for the 1st time, maybe there is no image displayed, and there will be a clue to install the ActiveX. You can do some settings to enable the ActiveX. (Details: **For IE Browser**)

4.1.14 Problems with network bandwidth

The image frame rate is subjected to the following factors:

1. Network bandwidth
2. PC performance, network environment and display preference setting (brightness, theme, etc)
3. The number of visitors (Too many visitors will slow down the image frame rate)
4. Choice of switch or hub (Use a switch for multiple IP Camera Servers rather than a HUB)

4.1.15 How to register an account from DDNS web

You can enter http://www.dyndns.com/ and **register an account,** more details please check the **Quick Installation Guide**

4.1.16 Why pop-up the prompt" Fail to connect to the device…"?

This prompt only appeared in the case of using multiple cameras.

When you set multiple cameras, the device status light change to yellow , then please make sure the camera connected and works correctly.

4.2 Default Parameters

Default network Parameters
IP address: dynamic obtain
Subnet mask: dynamic obtain
Gateway: dynamic obtain
DHCP: Disabled
DDNS: factory DDNS and third party DDNS
Username and password
Default administrator username: **admin**
Default administrator password: No password

5. Specifications

Specification:		
Image Sensor	Image Sensor	1/4" Color CMOS Sensor
	Display Resolution	640 x 480 Pixels(300k Pixels)
	Lens	3x Optical Zoom
	Mini. Illumination	0.5Lux, F2.0
	Lens Type	Glass Lens
	Viewing Angle	30.7° ~ 69°
Audio	Input	1 channel audio input
	Output	1 channel audio output
	Audio Compression	ADPCM
Video	Image Compression	MJPEG
	Image Frame Rate	15fps(VGA),30fps(QVGA)
	Resolution	640 x 480(VGA), 320 x 240(QVGA)
	Flip Mirror Images	Vertical / Horizontal
	Light Frequency	50Hz, 60Hz, Outdoor
	Video Parameters	Brightness, Contrast
Communication	Ethernet Interface	10Base-T/100Base-TX Ethernet Port
	Supported Protocol	TCP/IP, DHCP, SMTP, HTTP, DDNS, UPNP, PPPoE, FTP, DNS
	Wireless Standard	IEEE 802.11b/g
	Data Rate	802.11b: 11Mbps (Max.), 802.11g: 54Mbps (Max.)
	Wireless Security	WEP & WPA WPA2 Encryption
Physical	Pan/Tilt Angle	Horizontal:355° & Vertical: 90°
	Alarm Input	1 Channel on/off Input

	Alarm Output	1 Channel relay Output
	Dimension	165*195*130 mm
Power	Power Supply	DC 12V/2.0A (EU,US adapter or other types optional)
	Power Consumption	8 Watts (Max.)
Environment	Operate Temper.	0° ~ 55°C
	Operating Humidity	20% ~ 85% non-condensing
	Storage Temper.	-25°C ~ 55°
	Storage Humidity	0% ~ 90% non-condensing
PC System Requirements	CPU	2.0GHZ or above (suggested 3.0GHz)
	Memory Size	256MB or above (suggested 1.0GHz)
	Display Card	64M or above
	Supported OS	Microsoft Windows 2000/XP/Vista/7
	Browser	IE6.0/7.0/8.0/Firefox/Safari/Google chrome or other standard browsers
Certification	CE, FCC, RoHS	

6. OBTAINING TECHNICAL SUPPORT

While we hope your experience with the IP CAMERA network camera is enjoyable and easy to use, you may experience some issues or have some questions that this User's Guide has not answered. Please contact your reseller and ask for help firstly, if they could not resolve your issue, please contact our company.

This user manual is based on the latest version of our camera.
System Firmware: 17.25.2.38

If your cameras do not support some special functions showed in the manual, please contact our technical support team to obtain the latest Firmware and WEB UI file for doing upgrade.

NOTE: Some old version cameras can't be upgraded to the latest version, that's not only the software difference, but also the hardware difference. If you can't make sure of it, please contact with our technical support team directly.